Commonwealth of Kentucky

Date: June 30, 2026

D-J Grant No. F-40, Segment 48

Period: 01 April 2025
through
31 March 2026

ANNUAL PERFORMANCE REPORT

for

Statewide Fisheries Investigation Project

Part II of III

Subsection II: Reservoir and Urban Fisheries Research Branch

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Department of Fish and Wildlife Resources
Fisheries Division

STATE: Kentucky

PROJECT NO: F-40-48

GRANT TYPE: Research and Survey

GRANT TITLE: Statewide Fisheries Investigations

SUBSECTION II TITLE: Reservoir and Urban Fisheries Research Branch

PERIOD COVERED: 1 April 2025 - 31 March 2026

RESEARCH AND SURVEY SECTION

Subsection II

Project I Urban Fishing Program in Kentucky

Project Objective: To develop high quality urban fisheries in Kentucky that lead to high angler use, catch rates, and satisfaction.

A. ACTIVITY

During 1 April 2025 – 31 March 2026, 91,016 catfish (channel catfish, blue catfish and channel catfish x blue catfish hybrids), 120,750 rainbow trout and 13,500 bluegill were stocked in the Fishing in Neighborhoods (FINs) lakes. The program currently includes 45 lakes in 28 counties. A memorandum of agreement is in place with all lake owners enrolled in the FINs program giving Kentucky Department of Fish and Wildlife Resources (KDFWR) the authority to manage fish populations and set standardized regulations for all lakes in the program. An agency policy for adding new lakes to the FINs program was drafted and approved in January 2015 and updated in 2022.

Advertising and marketing efforts were employed in a continuing attempt to raise awareness of the FINs program, increase participation, and recruit new anglers. Facebook and X (formerly Twitter) notifications were posted around stocking dates. District fisheries biologists also mentioned the FINs program and stocking schedules in their weekly fishing reports. Flyers promoting the FINs program were distributed at boat shows, the state fair and other outreach events. A one-page advertisement for the FINs program appeared in the 2025-26 Kentucky Fishing and Boating Guide. Additionally, a one-page stocking table appeared in the 2025 and 2026 Kentucky Afield calendars. Newspaper, magazine and tv interviews, as well as press releases, were issued to promote the program. All lake owners were notified prior to fish being stocked so they could contact their followers via social media. The FINs website was routinely updated to convey the latest stocking information and list of lakes enrolled in the program. Kiosk posters promoting the FINs program and KDFWR's role in fish management and stocking was displayed at 23 of the 45 lakes. Information on the kiosk posters included the FINs logo, mission statement, fish stocking dates and quantities, license requirements, fishing regulations, fish identification, poacher hotline, no littering graphic, brief overview of fishery and past sampling, basic knot tying and the location of a rod loaner program if present.

Spring electrofishing sampling was conducted at 23 FINs lakes in May 2025. Samples were conducted to gather information on species composition, catch rates, and size structure. Furthermore, tandem hoop nets were used to sample catfish populations at 18 FINs lakes in October 2025.

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned work achievement date- 31 March 2026
Work accomplished- 31 March 2026

C. SIGNIFICANT DEVIATIONS

None.

D. REMARKS

None.

E. RECOMMENDATIONS

Continue project as planned on the next grant segment.

Project II Evaluation of Angling Effort Using Remote Cameras

Project Objective: To assess angling effort at the FINs program lakes. This will aid is determining whether FINs lakes around the state have similar angling pressure to FINs lakes in Central Kentucky where recent creel surveys have been conducted. This data will also aid in assessing if current stocking strategies are adequate for the amount and timing of angling effort. If certain FINs lakes are not receiving the perceived pressure, then stocking rates could be reduced or other lake(s) substituted in the FINs program.

A. ACTIVITY

Cameras were installed at 15 FINs lakes in September 2017, with counts beginning 1 October 2017 and running through 30 September 2018. Additionally, cameras were set up at Jacobson Lake in October 2018 with counts beginning 1 November 2018 and running through 31 October 2019. The final group of eight FINs lakes had cameras set up in 2019 with counts beginning 1 October 2019 and running through 30 September 2020. Cameras were checked every 6-8 weeks to exchange memory cards and batteries. Both primary and secondary FINs lakes were surveyed to get a range of fishing pressure.

Cameras were set up to take a picture every half-hour from daylight to dusk. Only images at the top of the hour were used for analysis; however, the half hour pictures helped postulate if someone was fishing as well as aided in the number of in-person visual counts that could be collected for the correction factor. Timelapse Image Analyzer was used to assist KDFWR personnel with image analysis. This free software designed by the University of Calgary speeds up image analysis and reduces errors, by automatically populating many of the fields needed for analysis and reduces data entry errors by placing the image and data entry on the same form. In a previous study, this software was found to cut image analysis time in half versus viewing images and entering data in separate spreadsheets. Images analysis by KDFWR technician staff was completed in April 2021, with final analysis of data still ongoing. Cameras were collected after the 12-month period. The first instance of vandalism occurred in June 2018 when a camera at Logan Hubble Park Lake went missing along with the security box.

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned work achievement date- 31 March 2026
Work accomplished, cameras collected - Analysis of images and data ongoing/delayed

C. SIGNIFICANT DEVIATIONS

None

D. REMARKS

None.

E. RECOMMENDATIONS

The analysis is being completed for 24 additional FINs lakes surveyed in 2017-18, 2018-19 and 2019-20 that will appear in Segment 49.

Project III Evaluation of Threadfin Shad Stockings and Overwinter Survival in Kentucky Reservoirs

Project Objective: To determine Threadfin Shad survival and Threadfin Shad/Gizzard Shad relative abundance in Paintsville Lake following the 2023 and potential future stockings, and monitor for potential impacts to Largemouth Bass, Gizzard Shad, and other young-of-year fishes from stocking Threadfin Shad.

Use electrofishing sampling to verify presence/absence of Threadfin Shad and other clupeids in all impoundments >500 acres in Kentucky. From 1957-1996, all impoundments >500 acres in Kentucky except Yatesville Lake and Cedar Creek Lake (built in 2002) were stocked with Threadfin Shad, but current status of Threadfin Shad is unknown in some lakes.

A. ACTIVITY

Electrofishing surveys were conducted in the spring and fall for shad and Largemouth Bass at Paintsville Lake from Spring 2024 – Spring 2026. Ichthyoplankton trawls were also conducted on Paintsville Lake from 2023-2025 to survey larval fish populations. Temperature loggers were deployed by the Army Corps of Engineers at four locations throughout Paintsville Lake to monitor water temperatures due to concerns of Threadfin Shad ability to overwinter.

Electrofishing surveys were conducted February – May 2024 in Barren River Lake, Dewey Lake, and Taylorsville Lake to determine presence/absence. In 2025, Lake Beshear, Lake Malone, Wood Creek Lake, and Yatesville Lake were surveyed and Cave Run Lake, Nolin River Lake, and Rough River Lake were surveyed in 2026. Carr Creek Lake will be completed later in 2026. The last of the remaining impoundments >500 will be surveyed in 2027 and include Buckhorn Lake, Cedar Creek Lake, Fishtrap Lake, and Grayson Lake.

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned work achievement date- 31 March 2026
Work accomplished- 31 March 2026

C. SIGNIFICANT DEVIATIONS

Nolin River Lake didn’t receive dedicated shad electrofishing sampling due to detection of Threadfin Shad during a winterkill in early 2026.

D. REMARKS

None.

E. RECOMMENDATIONS

Cease stocking of Threadfin Shad at Paintsville Lake until project completion. Stocking of Threadfin Shad into new waterbodies should be delayed until conclusion of project.

Project IV Evaluation of Kentucky's Bass Stocking Initiative

Project Objective: Variable recruitment in Largemouth Bass fisheries is common in Kentucky. This can lead to poor year class strength and potentially cause declines of a fishery. Kentucky's Bass Stocking Initiative (BSI) program was started in 2005 to combat this issue. However, results were variable and haven't been monitored since 2012. New updates for BSI include a new predictor model for if a stocking is needed, a spring stocking timeframe, stocking larger fish, and new 95% genetically pure Largemouth Bass broodstock. The objectives of this study are to update and evaluate the BSI program to determine if stocked Largemouth Bass are successfully contributing to the fishery.

A. ACTIVITY

A new predictive model for the BSI was developed in 2024. If the fall age-0 >5 in electrofishing CPUE was <20 fish/hr then a lake would be considered for stocking. The model will be tested to determine if it is a good predictor of year class strength based on catch rates of wild reared Largemouth Bass at age-1 with electrofishing gear the following spring.

All 13 study lakes were sampled in Fall 2024 to determine eligibility for stocking through the BSI program with three lakes selected for stocking in Spring 2025. Carr Creek Lake, Fishtrap Lake, and Lake Carnico were stocked at 10 fish/acre in March 2025 with stocked bass marked with a right pectoral fin clip.

Largemouth Bass used for broodstock at Kentucky state-owned hatcheries were tested for genetic purity with only ≥95% Largemouth Bass alleles selected for broodfish. New broodstock were spawned in 2024 to produce offspring for stocking the BSI study lakes in March 2025 as age-1 fish averaging 5.4 in.

Only 11 of the 13 lakes were sampled in Spring 2025 to test the predictor model. The model made the correct prediction of year class strength in seven of 11 lakes. The model will continue to be evaluated throughout the study period.

Twelve of the 13 study lakes were sampled in the Fall 2025 to determine eligibility for stocking through the BSI program with the same three lakes selected for stocking in 2026. Carr Creek Lake, Fishtrap Lake, and Lake Carnico were stocked at 10 fish/acre in March 2026 with stocked bass marked with a left pelvic fin clip. Catch rates and contribution of stocked bass will be monitored in subsequent years at study lakes. Early results from Fall 2025 electrofishing surveys showed good returns on fish stocked in the three study lakes in March 2025.

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned work achievement date- 31 March 2026
Work accomplished- 31 March 2026

C. SIGNIFICANT DEVIATIONS

None

D. REMARKS

None.

E. RECOMMENDATIONS

None

Project V Evaluation of Largemouth Bass Removals in Three Small Kentucky Impoundments

Project Objective: 1) Create a standardized bass removal method, 2) achieve a balanced bass population within three years of bass removals beginning, 3) maintain a balanced population for three consecutive years after bass removals cease, 4) significantly increase spring electrofishing CPUE of 12.0-14.9 and ≥15.0 in bass length groups.

A. ACTIVITY

The three study lakes were sampled in Spring 2025 with electrofishing gear to determine if bass removals were necessary.

The catch rate of Largemouth Bass <12 in was 202.8 fish/hr at Benjy Kinman Lake. A total of 1,852 Largemouth Bass (3-11 in class) were removed from Benjy Kinman Lake between 30 April – 4 June 2025 in 17 boat days. Benjy Kinman Lake qualified for the high removal rate (40 fish/acre) in 2025, but the base rate (20 fish/acre) was chosen at the request of the district due to low catch rates during removal efforts, the standard error encompassing the high and base removal rate and concern of removing fish from weaker year classes.

The catch rate of Largemouth Bass <12 in was 350.4 fish/hr at Panbowl Lake. A total of 3,014 target age-1 and 726 young-of-year Largemouth Bass were removed from Panbowl Lake between 22 April and 1 October 2025 in 17 boat days. Panbowl Lake qualified for the high removal rate (40 fish/acre) in 2025.

The catch rate of Largemouth Bass <12 in was 147.5 fish/hr at Shanty Hollow Lake. Shanty Hollow Lake was below the base removal rate recommendation; however, the standard error encompassed the base removal rate (20 fish/acre) and was chosen by the district. A total of 2,181 age-1 Largemouth Bass (3-11 in class) were removed from Shanty Hollow Lake between 29 April – 28 May 2025 in nine boat days.

Relative weight data was also collected at each study lake in the fall and will be used to determine if Largemouth Bass condition improves as bass are removed from the fishery.

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned work achievement date- 31 March 2026
Work accomplished- 31 March 2026

C. SIGNIFICANT DEVIATIONS

Removed Largemouth Bass from Shanty Hollow Lake fish will not be relocated to Green River in 2026 due to a high amount of Florida Bass alleles revealed in genetic testing.

D. REMARKS

None.

E. RECOMMENDATIONS

None.

Project VI Evaluation of Stocking Largemouth Bass Removed from a Stunted Bass Population into New Waterbodies

Project Objective: To determine if the electrofishing CPUE of Largemouth Bass can be significantly increased in three impoundments by stocking bass from bass crowded lakes at a rate of 5 fish/acre.

A. ACTIVITY

Electrofishing was conducted in Spring 2025 at the three study lakes; Guist Creek Lake, Doe Run Lake, and Jacobson Park Lake. All lakes were stocked at 5 fish/acre (6-11 in class) and were marked with a right pectoral fin clip. The Largemouth Bass stocked in Guist Creek Lake were sourced from Benjy Kinman Lake, whereas the Largemouth Bass stocked in Doe Run Lake and Jacobson Park Lake were from Grayson Lake.

There was mortality observed while Largemouth Bass were held at Minor Clark Fish Hatchery and in transit on the fish hauling truck to Doe Run Lake. The lake received 207 of the 245 fish originally planned for stocking in 2025. Future stockings will include a small buffer to offset initial mortality (10-15 extra fish). Largemouth Bass will be stocked in the three study lakes in 2026 and 2027, with monitoring continuing through 2030.

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned work achievement date- 31 March 2026
Work accomplished- 31 March 2026

C. SIGNIFICANT DEVIATIONS

A.J. Jolly Lake was originally considered for a project lake and was stocked with Largemouth Bass in 2025 at 5 fish/acre. However, the lake was closed and lake levels were lowered for dam repairs where the lake could not be stocked or sampled in 2026. The lake was removed as a study lake.

D. REMARKS

None.

E. RECOMMENDATIONS

None.

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Project I: Urban Fishing Program in Kentucky
Section I: Stocking Initiative

FINDINGS

The Fishing in Neighborhoods (FINs) program underwent an expansion from 6 pilot lakes in 2009 to 29 lakes in the spring of 2010. Additional lakes were added and subtracted in subsequent years, bringing the current total to 45 lakes in 28 counties statewide. Total surface acreage for lakes enrolled in the FINs program is 298 acres.

Catfish (channel catfish, blue catfish and channel catfish x blue catfish hybrids), rainbow trout and bluegill were the species stocked in the FINs lakes from April 2025 – March 2026. These stockings of large keeper-size catfish (15 in avg), trout (10 in avg), and bluegill (6 in avg) provide anglers with quality fishing opportunities close to home. The FINs lakes are designated as either primary or secondary lakes (Table 1), which determines stocking rates and months (Table 2).

In 2025-26, primary lakes received four stockings of catfish (12.0 – 20.0 in) occurring in April, May, June 2025, and March 2026; secondary FINs lakes received two annual stockings of catfish in April and June (Tables 2-3). Elkhorn Creek flooded Pfeiffer Fish Hatchery in April 2025 which led to some catfish stockings scheduled in April to be canceled or postponed to May. Pfeiffer Fish Hatchery supplies all the catfish for the FINs program. A total of 91,016 catfish stocked from 1 April 2025 – 31 March 2026 (Table 4). The 91,016 catfish stocked during this period was less than the 118,200 catfish in the production plan, due to issues with survival and growth of catfish at the hatchery and loss of catfish during the flood.

Trout stocking numbers were reduced by roughly 25% in 2017 to produce larger trout for the FINs program. The overall total weight of stocked trout remained the same for the FINs program; however, average size of fish increased from roughly 9.0 in and 0.3 lbs to 10.3 in and 0.4 lbs. All rainbow trout for the FINs program are produced at Wolf Creek National Fish Hatchery. In total, 120,750 rainbow trout were stocked from 1 April 2025 – 31 March 2026 (Table 4). Rainbow trout are stocked at a standardized rate in the FINs lakes (Table 2), with most lakes receiving three trout stockings annually: October or November, February, and March. Carlson Lake at Ft. Knox does not get stocked with rainbow trout because concerns were raised of trout swimming up into Grahampton Cave, which feeds Carlson Lake, and feeding upon northern cavefish (*Amblyopsis spelaea*) which are listed as threatened and ghost crayfish (*Orconectes inermis inermis).* Both species are ill-adapted to avoid trout predation. Waymond Morris Park Lake, Kentucky Horse Park Rolex Lake, Flemingsburg Old Reservoir, Brickyard Pond, and Maysville-Mason County Rec Park Lake do not receive the March trout stocking. These lakes had lower utilization of trout and high numbers of trout were seen while sampling in May of previous years.

In total, 13,500 bluegill (5.0 – 10.0 in) were stocked in June 2025 (Tables 3-4) in lakes that had poor sunfish populations, heavy fishing pressure, or free fishing weekend events. In previous years, hybrid sunfish were stocked at FINs lakes. However, these hybrid sunfish stockings were replaced with bluegill starting in 2022. While the hybrid sunfish stockings worked well for improving short-term angling success, the stockings did not improve sunfish angling opportunities over an extended period as most fish were quickly harvested. By stocking high densities of larger bluegill, we hope to improve short-term angling success in addition to potentially shifting the size structure of bluegill in impoundments where stocked. A total of 20,000 bluegill annually will be in the production plan to cover the needs of the FINs program. Bluegill that were in production for stocking in 2025 and 2026 were lost in the aforementioned April 2025 flood.

Fish stocking rates at the FINs lakes are much higher than at larger reservoirs or streams around the state. Utilization of these stocked fish is being assessed through routine electrofishing and tandem hoop net samples. Furthermore, exploitation studies, creel surveys, and use of time-lapse cameras to assess fishing pressure have been used to assess angling pressure at FINs lakes.

Table 1. Lakes enrolled in the Fishing in Neighborhoods program for 2025-26.

Lake	County	Lake designation
Anderson County Community Park Lake	Anderson	Primary
Camp Ernst Lake	Boone	Primary
Millennium Park Pond	Boyle	Primary
Alexandria Community Park Lake	Campbell	Primary
Robert J. Barth Park Lake	Campbell	Primary
Panther Creek Park Lake	Daviess	Primary
Waymond Morris Park Lake	Daviess	Primary
Yellow Creek Park Lake	Daviess	Primary
Jacobson Park Lake	Fayette	Primary
Lower Sportsman's Lake	Franklin	Primary
Upper Sportsman's Lake	Franklin	Primary
Kess Creek Park Lake	Graves	Primary
James D. Beville Park Lake	Grayson	Primary
Rotary Park Lake	Hickman	Primary
Tom Wallace Park Lake	Jefferson	Primary
Waverly Park Lake	Jefferson	Primary
William F. Miles Angler Lake	Jefferson	Primary
William F. Miles Green Heron Lake	Jefferson	Primary
Lake Mingo	Jessamine	Primary
Southland Church Lake	Jessamine	Primary
Middleton Mills Long Pond	Kenton	Primary
Middleton Mills Shelterhouse Pond	Kenton	Primary
Brickyard Pond	Knox	Primary
Whitehall Park Lake	Madison	Primary
Lake Montgomery	McCracken	Primary
Carlson Lake (Ft. Knox)	Meade	Primary
Easy Walker Park Pond	Montgomery	Primary
Lusby Lake	Scott	Primary
Scott County Park Lake	Scott	Primary
Jesse W. Thornton Lake	Warren	Primary
Southgate Lake	Campbell	Secondary
Kentucky Horse Park Rolex Lake	Fayette	Secondary
Flemingsburg Old Reservoir	Fleming	Secondary
Lake Pollywog	Grant	Secondary
Leary Lake	Grant	Secondary
Kingdom Come State Park Lake	Harlan	Secondary
Madisonville City Park Lake South	Hopkins	Secondary
Cherokee Park Lake	Jefferson	Secondary
Fisherman's Park Lake # 3	Jefferson	Secondary
Fisherman's Park Lake # 4	Jefferson	Secondary
Prisoners Lake	Kenton	Secondary
Logan Hubble Park Lake	Lincoln	Secondary
Mike Miller Park Lake	Marshall	Secondary
Maysville-Mason County Recreation Park Lake	Mason	Secondary
Bloomfield Park Lake	Nelson	Secondary

Table 2. Fishing in Neighborhoods lakes fish stocking rates and schedule for 2025-26.

Lake designation	Fish species	Stocking rate (fish/acre)	Months stocked
Primary	Catfish	1-10 acres 200/acre 10-20 acres 100/acre > 20 acres 50/acre	Apr, May, Jun, Mar 26
Secondary	Catfish	1-10 acres 200/acre 10-20 acres 100/acre > 20 acres 50/acre	Apr, Jun
Primary/Secondary	Rainbow trout	1-2.9 acres 500 fish 3.0-4.4 acres 750 fish 4.5-30 acres 1,500 fish > 30 acres 3,000 fish	Oct or Nov, Feb, Mar 26
Primary/Secondary	Bluegill	1-3.4 acres 500 fish/acre 3.5-10 acres 300 fish/acre > 10 acres 3,000 fish	Jun

Table 3. Number of fish stocked in Fishing in Neighborhood lakes from 1 April 2025 – 31 March 2026. Asterisk (*) denotes deviation from stocking plan.

			Rainbow trout				Catfish (channel/blue/hybrid)				Bluegill
Lake	County	Acreage	Oct 25	Nov 25	Feb 26	Mar 26	Apr 25	May 25	Jun 25	Mar 26	Jun 25
Anderson County Community Park Lake	Anderson	1.0		500	500	500	*	200	200	200	
Camp Ernst Lake	Boone	25.0		1,500	1,500	1,500	*	1,250	1,250	1,250	
Millennium Park Pond	Boyle	2.2		500	500	500	*	400	400	400	
Alexandria Community Park Lake	Campbell	7.0		1,500	1,500	1,500	*	1,400	700*	1,400	2,100
Robert J. Barth Park Lake	Campbell	3.7		750	750	750	*	700	700	700	
Southgate Lake	Campbell	1.8		500	500	500	*	300*	300*		
Panther Creek Park Lake	Daviess	3.8	750		750	750	800	800	800	800	1,200
Waymond Morris Park Lake	Daviess	4.8	1,500		1,500		1,000	1,000	600*		
Yellow Creek Park Lake	Daviess	3.1	750		750	750	600	600	600	600	
Jacobson Park Lake	Fayette	46.3	3,000		3,000	3,000	2,300	1,200*	1,200*	2,300	
Kentucky Horse Park Rolex Lake	Fayette	5.6		1,500	1,500		600*		600*		
Flemingsburg Old Reservoir	Fleming	10.8		1,500	1,500		*	1,100*	1,100		
Lower Sportsman's Lake	Franklin	2.7	500		500	500	*	600	600	600	
Upper Sportsman's Lake	Franklin	6.2	1,500		1,500	1,500	*	1,200	1,200	1,200	1,800
Lake Pollywog	Grant	3.5		750	750	750	*	350*	700		
Leary Lake	Grant	4.6		1,500	1,500	1,500	*	350*	900		
Kess Creek Park Lake	Graves	2.1	500		500	500	400	400	400	400	
James D. Beville Park Lake	Grayson	3.1	750		750	750	300*	300*	300*		
Kingdom Come State Park Lake	Harlan	2.5	500		500	500	500		500		
Rotary Park Lake	Hickman	1.0	500		500	500	200	200	200	200	
Madisonville City Park Lake South	Hopkins	25.9	1,500		1,500	1,500	1,250		600*		
Cherokee Park Lake	Jefferson	4.2	750			1,500*	*		800		
Fisherman's Park Lake # 3	Jefferson	1.8	500		500	500	*		400		
Fisherman's Park Lake # 4	Jefferson	2.4	500		500	500	*		400		
Tom Wallace Park Lake	Jefferson	4.8	1,500		1,500	1,500	*	1,000	1,000	1,000	1,500
Waverly Park Lake	Jefferson	4.5	1,500		1,500	1,500	*	900	900	900	1,350
William F. Miles Angler Lake	Jefferson	3.6	750		750	750	*	700	700	700	1,100
William F. Miles Green Heron Lake	Jefferson	1.1	500		500	500	*	200	200	200	500
Lake Mingo	Jessamine	2.5	500		500	500	*	500	500	500	
Southland Church Lake	Jessamine	2.6	500		500	500	*	500	300*	500	
Middleton Mills Long Pond	Kenton	1.2	500		500	500	300	300	300	300	
Middleton Mills Shelterhouse Pond	Kenton	1.2	500		500	500	300	300	300	300	500
Prisoners Lake	Kenton	3.8	750		750	750	600*		300*		
Brickyard Pond	Knox	9.5		1,500	1,500		2,000	1,066*	800*	1,000	
Logan Hubble Park Lake	Lincoln	9.2		1,500	1,500	1,500	*		1,800		
Whitehall Park Lake	Madison	6.0	1,500		1,500	1,500	*	1,200	1,200	1,200	
Mike Miller Park Lake	Marshall	3.9	750		750	750	350*		350*		
Maysville-Mason County Rec Park Lake	Mason	11.6		1,500	1,500		1,150		700*		
Lake Montgomery	McCracken	5.5	1,500		1,500	1,500	1,100	800*	1,000*	1,100	1,650
Carlson Lake (Ft. Knox)	Meade	14.0					1,400		900*		
Easy Walker Park Pond	Montgomery	1.6		500	500	500	400	400	400	400	800
Bloomfield Park Lake	Nelson	2.4		500	500	500	*	300*	300*		
Lusby Lake	Scott	2.3		500	500	500	500	500	300*	500	
Scott County Park Lake	Scott	2.5		500	500	500	500	500	300*	500	500
Jesse W. Thornton Lake	Warren	28.9	1,500*		1,500	1,500	1,450	1,450	1,450	1,450	500

Table 4. Total number and weight of fish stocked in the FINs lakes in 2025-26.

	Fish species	Number of fish stocked	Number of pounds
45 FINs lakes	Catfish	91,016	86,511
	Rainbow trout	120,750	51,923
	Bluegill	13,500	3,144

Project I: Urban Fishing Program in Kentucky
Section II: Advertisement for the FINs Program

FINDINGS

Advertising and marketing efforts were employed in a continuing attempt to raise awareness of the Fishing in Neighborhoods (FINs) program, increase participation, and recruit new anglers. Facebook and X (formerly Twitter) notifications were posted around stocking dates. District fisheries biologists also mentioned the FINs program and stocking schedules in their weekly fishing reports. Several local newspapers and news stations reached out when fish were stocked, so they could help promote and make the public aware of our efforts. All lake owners were notified prior to fish being stocked so they could contact their followers via social media.

An 8.5x11 in flyer was distributed at boat shows, the state fair and other outreach events (Figure 1). Additionally, a FINs banner was displayed at the KDFWR booth at these shows (Figure 2). A one-page advertisement for the FINs program appeared in the 2025-26 Kentucky Fishing and Boating Guide. Additionally, a one-page stocking table appeared in the 2025 and 2026 Kentucky Afield calendars (Figure 3). Care was taken to keep the FINs graphics and message consistent across various media outlets.

The FINs website was routinely updated to convey the latest stocking information and list of lakes enrolled in the program. The website also features detailed maps of lakes enrolled in the program, fish stocking dates and quantities, regulations, basics of how-to fish, and a link to purchase a license.

All lakes enrolled in the FINs program have a memorandum of agreement (MOA) giving KDFWR the authority to manage fish populations and set standardized regulations. The standard set of regulations at the lakes is four catfish, five rainbow trout, 15 bluegill or other sunfish, and one largemouth bass over 15.0 in. Metal 4 ft x 4 ft regulation signs and smaller yellow plastic regulation signs are posted around the lakes. A QR code sticker was affixed to all the signs in 2021 that directed anglers to the online Fishing and Boating Guide in English or Spanish. Stocking dates and fish quantities were emailed to the conservation officers in advance of the stockings for enforcement purposes. All lake owners enrolled in the FINs program agree to assist through maintaining access to the fishing areas including trash pick-up, mowing, cleaning restrooms, and assisting with fishing events.

Information kiosks are installed at 23 of the 45 lakes to inform the public of the FINs program and make anglers and park-goers aware of KDFWR's role in fish management and stocking. The kiosk posters are specific to each lake and updated annually. Information in the kiosk included the FINs logo, mission statement, fish stocking dates and quantities, license requirements, fishing regulations, fish identification, poacher hotline, no littering graphic, brief overview of fishery and past sampling, basic knot tying and the location of a rod loaner program if present. Kiosk posters were printed on vinyl banners in 2026 to help prevent water damage from leaking kiosks and prolong the life of the posters.

Figure 1. Flyer used to advertise the Fishing in Neighborhoods program in 2025-26.

Figure 2. Banner used to advertise the Fishing in Neighborhoods program in 2025-26.

FINs LAKES 2026 STOCKINGS

Fishing in Neighborhoods (FINs)

FISHING IN NEIGHBORHOODS is a program started by the Kentucky Department of Fish and Wildlife Resources to bring good fishing closer to your home. The thought is you shouldn't have to drive 2-3 hours just to find a spot to fish with your family or simply wet a line after a long day of work.

The FINs program takes advantage of park lakes all over the state. You'll discover FINs lakes offer not only a place to fish, but locations where you can spread out a blanket and enjoy time fishing with your whole family.

Naturally, the more people fish a lake, the fewer the fish you'll find in it. That's why Kentucky Fish and Wildlife stocks these lakes several times a year with catfish and trout, two of the most highly sought fish species by anglers.

Use this chart to find a FINs lake in the county nearest you. This handy chart also shows you what month each lake is stocked and what kind of fish are being put in the water.

This year, take advantage of the FINs program and enjoy some time fishing with your family. You'll be glad you did. ■

		TROUT				CATFISH			
LAKE	COUNTY	Feb.	Mar.	Oct.	Nov.	Mar.	Apr.	May	June
Anderson County Community Park Lake	Anderson	500	500		500	200	200	200	200
Camp Ernst Lake	Boone	1,500	1,500		1,500	1,250	1,250	1,250	1,250
Millennium Park Pond	Boyle	500	500		500	400	400	400	400
Alexandria Community Park Lake	Campbell	1,500	1,500		1,500	1,400	1,400	1,400	1,400
Robert J. Barth Park Lake	Campbell	750	750		750	700	700	700	700
Southgate Lake	Campbell	500	500		500		400		400
Panther Creek Park Lake	Daviess	750	750	750		800	800	800	800
Waymond Morris Park Lake	Daviess	1,500		1,500			1,000		1,000
Yellow Creek Park Lake	Daviess	750	750	750		600	600	600	600
Jacobson Park Lake	Fayette	3,000	3,000	3,000		2,300	2,300	2,300	2,300
Kentucky Horse Park Rolex Lake	Fayette	1,500			1,500		1,100		1,100
Flemingsburg Old Reservoir	Fleming	1,500			1,500		1,100		1,100
Lower Sportsman's Lake	Franklin	500	500	500		600	600	600	600
Upper Sportsman's Lake	Franklin	1,500	1,500	1,500		1,200	1,200	1,200	1,200
Lake Pollywog	Grant	750	750		750		700		700
Leary Lake	Grant	1,500	1,500		1,500		900		900
Kess Creek Park Lake	Graves	500	500	500		400	400	400	400
James D. Beville Park Lake	Grayson	750	750	750			600		600
Kingdom Come State Park Lake	Harlan	500	500	500			500		500
Rotary Park Lake	Hickman	500	500	500		200	200	200	200
Madisonville City Park Lake South	Hopkins	1,500	1,500	1,500			1,250		1,250
Cherokee Park Lake	Jefferson	750	750	750			800		800
Fisherman's Park Lake #3	Jefferson	500	500	500			400		400
Fisherman's Park Lake #4	Jefferson	500	500	500			400		400
Tom Wallace Park Lake	Jefferson	1,500	1,500	1,500		1,000	1,000	1,000	1,000
Waverly Park Lake	Jefferson	1,500	1,500	1,500		900	900	900	900
William F. Miles Angler Lake	Jefferson	750	750	750		700	700	700	700
William F. Miles Green Heron Lake	Jefferson	500	500	500		200	200	200	200
Lake Mingo	Jessamine	500	500	500		500	500	500	500
Southland Church Lake	Jessamine	500	500	500		500	500	500	500
Middleton Mills Long Pond	Kenton	500	500	500		300	300	300	300
Middleton Mills Shelterhouse Pond	Kenton	500	500	500		300	300	300	300
Prisoners Lake	Kenton	750	750	750			800		800
Brickyard Pond	Knox	1,500			1,500	1,000	1,000	1,000	1,000
Logan Hubble Park Lake	Lincoln	1,500	1,500		1,500		900		900
Whitehall Park Lake	Madison	1,500	1,500	1,500		1,200	1,200	1,200	1,200
Mike Miller Park Lake	Marshall	750	750	750			800		800
Maysville-Mason County Rec. Park Lake	Mason	1,500			1,500		1,150		1,150
Lake Montgomery	McCracken	1,500	1,500	1,500		1,100	1,100	1,100	1,100
Carlson Lake (Ft. Knox)	Meade						1,400		1,400
Easy Walker Park Pond	Montgomery	500	500		500	400	400	400	400
Bloomfield Park Lake	Nelson	500	500		500		500		500
Lusby Lake	Scott	500	500		500	500	500	500	500
Scott County Park Lake	Scott	500	500		500	500	500	500	500
Jesse W. Thornton Lake	Warren	1,500	1,500		1,500	1,450	1,450	1,450	1,450

Figure 3. Stocking table advertising Fishing in Neighborhoods program that appeared in 2026 Kentucky Afield calendar.

Project I: Urban Fishing Program in Kentucky
Section III: Fish Sampling

FINDINGS

Fish sampling was completed at 23 Fishing in Neighborhoods (FINs) lakes in May 2025. Samples were conducted with 10-min electrofishing runs using 60-pps direct current. All species that surfaced during the runs were netted and measured to the nearest 0.1 in except for gizzard shad, common carp, grass carp and rainbow trout. Multiple runs were conducted at most FINs lakes to allow measures of variability but were not possible at smaller lakes due to limited shoreline. Sampling conditions by waterbody and date are noted in Table 1. A proportional stock density (PSD) index (Figure 1) was used to determine balance or lack thereof of sunfish and largemouth bass populations. The PSD index is calculated as the percentage of fish of a quality size (total length) that is longer than a minimum stock size. Minimum stock and quality sizes (20 – 26% and 36 – 41% of world record length, respectively) are defined for: largemouth bass (8 and 12 in); bluegill (3 and 6 in); and redear sunfish (4 and 7 in). Where bluegill and redear sunfish populations were both present within a lake the sunfish PSD value was weighted according to relative abundance of each species. Sequential sampling methods were used to determine when a reliable PSD value (90% confidence) was within a defined interval (Weithman et al. 1980). If the sample size was inadequate to classify the fish population, the deficiency was noted with a superscript.

Anderson County Community Park Lake (Anderson County)

Anderson County Community Park Lake (1.0 acre) had gizzard shad present prior to a successful gizzard shad eradication conducted in January 2013. The size structure of largemouth bass and bluegill has noticeably shifted since the shad removal. No largemouth bass $\geq$ 13 in were collected in 2025 (Table 2); however, bluegill $\geq$ 6 have increased substantially since the shad removal (Table 3). The catch rate of bluegill in the 6.0 – 7.9 in length group (311.4 fish/hr) in 2025 was the highest observed since sampling began and well above the long-term mean (84.5 fish/hr). The low number of bluegill sampled in 2015 and 2019 appear to be abnormalities as bluegill numbers rebounded in 2017 and 2021, with fish present in all length groups. Redear sunfish were stocked in the fall of 2018 to establish a population, with good numbers of large redear sunfish $\geq$ 6 in sampled in 2019. The redear sunfish catch has continued to decline since 2019, with all fish sampled in 2025 $\geq$ 8 in. The 2025 overall catch rate for largemouth bass (101.8 fish/hr) was below the long-term mean (246.8 fish/hr); with bass catch rates in 2025 below the long-term mean for all length groups (Table 4). No bass were sampled in the $\geq$ 15.0 in length group in the 2017-25 surveys. The PSD index clearly depicts the shift from a fishery with few large sunfish and too many big bass with low recruitment prior to the shad removal in 2013 to a more balanced fishery following the shad removal, followed by a fishery with stunted bass and large sunfish with low recruitment (Figure 2). A couple of large common carp were sampled and removed from the lake in 2025. Additionally, yellow bass appeared in the 2023 and 2025 samples, likely from an angler introduction.

Camp Ernst Lake (Boone County)

Bluegill up to the 7 in class and redear sunfish up to the 9 in class were sampled in 2025 at Camp Ernst Lake (25.0 acres; Table 5). The catch rate for bluegill has been variable since sampling began in 2011 (Table 6). The 2025 catch rate of bluegill (203.6 fish/hr) was slightly below the long-term mean (240.6 fish/hr), with only the catch rate of bluegill in the > 3.0 in length group above the long-term mean. Redear sunfish were stocked in 2018 to establish a population; however, catch rates have remained low. The catch rate for largemouth bass in 2025 (267.5 fish/hr) was lower than the previous three surveys and below the long-term average (352.8 fish/hr; Table 7). However, the catch rate of bass in the 8.0 – 11.9 in length group continued to be above the long-term mean. The catch rate for bass in the 12.0 – 14.9 and $\geq$ 15.0 in length groups were both well below the long-term mean. Largemouth bass were removed in 2016 (125 fish, 8 – 15 in) and 2023 (125 fish, 5 – 12 in) from Camp Ernst Lake after the spring electrofishing surveys as the fishery shifted to a bass crowded population. These bass were stocked into surrounding FINs lakes that needed a boost to the bass fishery. Additional bass removals may be warranted to shift the fishery back to a more balanced sunfish and bass population, as the PSD indicates the bass population is crowded, and sunfish recruitment is low in the 2019-25 surveys (Figure 3).

Millennium Park Pond (Boyle County)

Millennium Park Pond (2.2 acres) had bluegill up to the 8 in class, redear sunfish up to the 11 in class and largemouth bass up to the 20 in class sampled in 2025 (Table 8). However, the overall bluegill catch rate was drastically reduced in 2025 (53.9 fish/hr) and well below the long-term average (851.1 fish/hr; Table 9). All redear sunfish sampled in 2025 were in the ≥ 8.0 in length group, with the overall catch rate around half the long-term mean. The overall catch rate for largemouth bass in 2025 (491.0 fish/hr), was nearly double the long-term mean (255.2 fish/hr; Table 10). The increase in the bass catch rate in 2025 may help explain the reduction in sunfish catch rates during the same year. The catch rate of bass was above the long-term mean in all length groups in 2025. The PSD index for Millennium Park Pond in 2025 indicates the fishery is bass balanced with too many large sunfish with low recruitment (Figure 4). The PSD index values have bounced around as the fishery has undergone shifts in the size structure of bass and sunfish in recent years, with fewer stocker size sunfish observed in 2025, compared to 2023.

Jacobson Park Lake (Fayette County)

Jacobson Park Lake (46.3 acres) exhibits a crowded bluegill population with stunted growth (Table 11). The bluegill catch rate in 2025 (931.1 fish/hr) was above the long-term average (717.4 fish/hr), with the vast majority of bluegill sampled in the 3.0 – 5.9 in length group (Table 12). The 2025 largemouth bass catch rate (77.8 fish/hr) was low and similar to the long-term average (73.0 fish/hr; Table 13). The catch rate for largemouth bass has historically been low at Jacobson Park Lake, with bass distributed through all length groups. The PSD index has remained stable, indicating a lake with few large sunfish, and large bass with low recruitment (Figure 5). This is typical of a small impoundment with gizzard shad present. Jacobson Park Lake is connected to Lake Ellerslie by a culvert under Richmond Road. The primary use for Lake Ellerslie is a municipal drinking water supply for Lexington. Kentucky Department of Fish and Wildlife does not have an agreement to cooperatively manage the fishery at Lake Ellerslie. Due to the connectivity to Jacobson Park Lake and use as a water supply lake, a shad removal is not suitable at this location. Common carp of all sizes are also abundant in the lake. Opportunities to improve the fishery at Jacobson Park Lake are limited.

Flemingsburg Old Reservoir (Fleming County)

Bluegill and redear sunfish up to the 7 in class and largemouth bass up to the 20 in class were present in the 2025 sample at Flemingsburg Old Reservoir (10.8 acres; Table 14). The overall catch rate of bluegill in 2025 (640.7 fish/hr) was considerably higher than the long-term mean (356.9 fish/hr), with the vast majority of bluegill in the 3.0 – 5.9 in length group (Table 15). Redear sunfish were stocked in 2018 to establish a population. The catch rate in 2025 (86.8 fish/hr) was nearly identical to the long-term average (85.3 fish/hr), with the majority of fish in the 3.0 – 5.9 length group. This was a shift in the size structure where in 2023 the majority of redear sunfish surveyed were in the ≥ 8.0 in length group and in 2025 no fish were sampled in this length group. The catch rate of bass in the ≥ 15.0 in length group in 2025 (59.9 fish/hr) was over double the long-term mean (25.2 fish/hr), while catch rates for all other length groups of bass were below the long-term means (Table 16). This lake was a new addition to the FINs program in 2017. A total of 109 largemouth bass between 10 – 14 in were removed after the 2021 sample and moved to a nearby FINs lake to free up available forage for remaining bass. The size structure of sunfish and bass was vastly different between the 2017 and 2019 samples as indicated in the PSD index but settled towards a more balanced bass fishery in the 2021 and 2023 samples with abundant large sunfish (Figure 6). A significant increase to the number of stock size sunfish observed in 2025 shifted the sunfish PSD value. The PSD value of largemouth bass has been increasing since 2019. Aquashade has been applied in recent years by park staff.

Lake Pollywog (Grant County)

Bluegill up to the 7 in class, redear sunfish up to the 10 in class and largemouth bass up to the 20 in class were all present in the 2025 sample at Lake Pollywog (3.5 acres; Table 17). There was a substantial fish kill at Lake Pollywog in fall 2018 that greatly impacted the fishery. Redear sunfish were stocked in the fall of 2018 after the fish kill to establish a population, with the majority of redear sunfish sampled in the 6.0 –

7.9 in length group in 2025 (Table 18). The bluegill catch rate was high (844.3 fish/hr) in 2025 and was near the long-term mean (878.9 fish/hr). Bluegill in the 6.0 – 7.9 in length group made up the majority of the catch, with the 2025 catch rate nearly three times the long-term mean. Largemouth bass catch rates were near or slightly above the long-term mean for all length groups in 2025 (Table 19). The overall catch rate for bass in 2025 (353.3 fish/hr) was slightly above the long-term mean (272.1 fish/hr). The PSD index indicates the fishery shifted after the fall 2018 fish kill with the number of larger bass as well as 3.0 – 5.9 in bluegill reduced (Figure 7). The fishery went from being bass balanced in 2013-17, towards low numbers of large bass in 2019-21, with abundant large sunfish present in 2019-25. The bass PSD value spiked in 2023 with a notable increase in the number of quality bass ($\geq$ 12 in) observed. The bass and sunfish populations have fully rebounded after the 2018 fish kill with good numbers of large bass and sunfish present in the 2025 sample.

Leary Lake (Grant County)

Bluegill up to the 8 in class, redear sunfish up to the 9 in class and largemouth bass up to the 21 in class were all present in the 2025 sample at Leary Lake (4.6 acres; Table 20). The bluegill catch rate in 2025 (188.6 fish/hr) was below the long-term average (335.7 fish/hr; Table 21). The majority of bluegill sampled in 2025 consisted of fish in the 6.0 – 7.9 in length group. The reduction in the overall bluegill catch rate in 2025 was due to low numbers of fish sampled in the 3.0 – 5.9 in length group. Redear sunfish were stocked in 2018 to establish a population, with low numbers of fish sampled in 2025. The largemouth bass overall catch rate (200.6 fish/hr) in 2025 was below the long-term mean (310.2 fish/hr; Table 22). Largemouth bass were present in all length groups, with catch rates of bass in the < 8.0 in and 12.0 – 14.9 length group below the long-term means. The PSD index indicates a fishery with abundant large sunfish, with the bass population shifting from crowded in 2016 and 2017, to balanced in 2019-23 and back to crowded in 2025 (Figure 8).

Kingdom Come State Park Lake (Harlan County)

Kingdom Come State Park Lake (2.5 acres) had redbreast sunfish up to the 8 in class and bluegill sampled up to the 7 in class in 2025 (Table 23). Bluegill in the 3.0 – 5.9 in length group made up the majority of the catch in 2025 (Table 24). While bluegill numbers were low in 2025, the catch rate (77.8 fish/hr) was near the long-term mean (60.8 fish/hr). Largemouth bass in the < 8.0 and 8.0 – 11.9 in length groups made up the vast majority of the catch in 2025 (Table 25). The 2025 total catch for bass (311.4 fish/hr) was above the long-term mean (254.7 fish/hr). The bass population continues to be crowded with limited forage. The PSD index indicates a stunted bass population with a low sample size for bluegill that bounces around from year to year, but trends towards being sunfish balanced (Figure 9). The lake has low fertility with secchi readings exceeding 7 ft commonplace. The lake was fertilized from 2017-21as well as 2023 and 2025 while conducting the spring electrofishing survey to increase productivity.

Cherokee Park Lake (Jefferson County)

The catch rate for bluegill and largemouth bass was low in 2025 at Cherokee Park Lake (4.2 acres; Table 26). The catch rate of bluegill in 2025 (71.9 fish/hr) was less than half the long-term average (188.3 fish/hr; Table 27). Bluegill in the 6.0 – 7.9 in length group made up the majority of the catch in 2025, while the catch rate of bluegill in the 3.0 – 5.9 in length group was well below the long-term average. The redear sunfish catch rate in 2025 was low (12.0 fish/hr) and much lower than the catch rate observed in 2023 (173.7 fish/hr). Largemouth bass numbers were up slightly in 2025 (119.8 fish/hr) compared to the 2023 sample (83.8 fish/hr), with only the catch rate of bass in the 8.0 – 11.9 in length group above the long-term mean (Table 28). There were significant fish kills during the summers of 2014 and 2022 due to low oxygen. The 2022 fish kill is the likely cause of the reduced largemouth bass catch rate in 2023 and 2025. The PSD index has shifted in recent years, especially following the fish kills (Figure 10). The lake has been close to bass balanced from 2011-19; however, the sample size was insufficient in most years to make reliable predictions as catch rates were typically low for both bass and sunfish. The PSD has bounced around since 2019. Cherokee Park Lake is over 100 years old and in need of renovation to improve the fishery as an excessive amount of detritus is currently stored in the lake.

Fisherman's Park Lake #3 (Jefferson County)

The catch rate was moderate for bluegill and redear sunfish in 2025 at Fisherman's Park Lake #3 (1.8 acres; Table 29). The bluegill catch rate in 2025 (185.6 fish/hr) was similar to the long-term average (212.2 fish/hr), with bluegill in the 3.0 – 5.9 in length group making up the majority of the catch, consistent with past samples (Table 30). Redear sunfish were stocked in 2018 to establish a population, with fish in the 3 – 9 in classes sampled in 2025. The catch rate of redear sunfish in 2025 (149.7 fish/hr) was the highest observed, with catch rates of fish in the 3.0 – 5.9 and 6.0 – 7.9 in length groups well above the long-term means. The largemouth bass catch rate in 2025 (137.7 fish/hr) was below the long-term mean (218.2 fish/hr) with catch rates below the long-term mean for all length groups except the < 8.0 in length group with a catch rate nearly double the long-term mean (Table 31). The PSD index tends to point towards a balanced bass population with low numbers of larger sunfish (Figure 11). The PSD values for largemouth bass in 2023 and 2025 were the highest observed. Grass carp were stocked in 2010 and 2011 to control curlyleaf pondweed in the lake and are proving successful at containing weed growth to keep bank fishing accessible. The Fisherman's Park lakes are infertile with secchi depths of 6 ft or more and have historically yielded low numbers of large fish. Lake fertilizations began in 2022 to increase productivity.

Fisherman's Park Lake #4 (Jefferson County)

Bluegill up to the 7 in class and redear sunfish up to the 10 in class were present in the 2025 sample at Fisherman's Park Lake #4 (2.4 acres), in addition to largemouth bass up to the 21 in class (Table 32). The bluegill catch rate in 2025 (652.7 fish/hr) was nearly double the long-term mean (334.0 fish/hr; Table 33.) The catch rate of bluegill in the 6.0 – 7.9 in length group (227.5 fish/hr) was three times the long-term mean (69.9 fish/hr), while bluegill in the 3.0 – 5.9 in length group made up most of the catch in 2025. Redear sunfish were stocked in 2018 to establish a population, with low numbers of fish sampled in 2019 and 2021. The redear sunfish catch rate increased in 2025 (221.6 fish/hr) and was nearly three times the long-term average (79.3 fish/hr), with fish well distributed through all length groups. The largemouth bass overall catch rate (53.9 fish/hr) in 2025 was the lowest observed since sampling began in 2010 (Table 34). Catch rates were well below the long-term mean for all length groups of bass except the $\geq$ 15.0 in length group. The PSD index indicates a bass balanced population since 2017 with good numbers of large sunfish sampled in three of the last four surveys (Figure 12). Grass carp were stocked in 2010 and 2011 to control curlyleaf pondweed in the lake and are proving successful at containing weed growth to keep bank fishing accessible. The Fisherman's Park lakes are infertile with secchi depths of 6 ft or more and have historically yielded low numbers of large fish. Lake fertilizations began in 2022 to increase productivity.

Tom Wallace Park Lake (Jefferson County)

Bluegill and redear sunfish up to the 8 in class as well as largemouth bass up to the 19 in class were sampled in 2025 at Tom Wallace Park Lake (4.8 acres; Table 35). The 2025 bluegill catch rate (62.9 fish/hr), was roughly half the long-term average (114.6 fish/hr; Table 36). Redear sunfish were stocked in 2019 to bolster the sunfish population, with an overall redear sunfish catch rate of 29.9 fish/hr in 2025 with fish appearing in the < 3.0 and 3.0 – 5.9 in length groups. The largemouth bass overall catch rate in 2025 (284.4 fish/hr) was similar to the long-term average (240.7 fish/hr; Table 37). Catch rates for bass in all length groups were similar to the long-term averages. The PSD clearly shows a fishery with a stunted bass population where a few bass make it through the bottleneck and reach a large size (Figure 13). The sunfish PSD has varied widely over the years with larger sunfish observed some years if the fish were spawning at the time of the sample, but overall numbers consistently low. With secchi readings typically in excess of 5 ft, Tom Wallace Park Lake is infertile. Lake fertilizations began in 2022 to increase productivity.

Waverly Park Lake (Jefferson County)

A successful gizzard shad eradication was conducted with a light dose of rotenone during February 2022 after shad were first observed in fall 2018 at Waverly Park Lake (4.5 acres). Bluegill up to the 6 in class

and redear sunfish up to the 8 in class were present in the 2025 sample (Table 38). The catch rate for bluegill in 2025 (86.8 fish/hr) was greatly reduced from the long-term average (278.2 fish/hr), with fish in the 3.0 – 5.9 in length group making up the highest proportion of the sample (Table 39). There was high incidental mortality of sunfish observed from the rotenone treatment and this likely accounts for the reduced bluegill catch rate in 2023 and 2025. Supplemental stockings of large bluegill occurred annually in June 2023-25 to bolster the population. Redear sunfish were stocked in 2019 to bolster an existing redear sunfish population, with the majority of fish sampled in the 6.0 – 7.9 in length group in 2025. The redear sunfish catch rate in 2025 (167.7 fish/hr) was over double the long-term average (74.5 fish/hr). There was a large spawn of largemouth bass in 2022 following the shad removal with a high catch rate of largemouth bass in 2023. This large bass spawn has been observed in several other lakes immediately following a shad removal. The largemouth bass catch rate in 2025 (386.2 fish/hr) was similar to the long-term mean (336.7 fish/hr), with an increased catch rate of fish in the 8.0 – 11.9 in length group as expected (Table 40). However, the catch rate of this 2022 year class of bass was reduced from that observed in 2023. The size structure for bluegill and largemouth bass populations has been poor in the past (2011-15), with few adult fish present, indicating possible overfishing (Figure 14). In 2017-19 the sunfish population shifted to a more balanced population, with the bass PSD improving in 2019-23 after shad were observed. The 2025 PSD value for largemouth bass was greatly reduced due to the increased catch rate of stock size bass (8.0 – 11.9 in). Grass carp were restocked in June 2023 to help control aquatic vegetation and keep fishing access open for bank anglers after the rotenone treatment removed existing grass carp.

William F. Miles Angler Lake (Jefferson County)

William F. Miles Angler Lake (3.6 acres) had largemouth bass sampled up to the 20 in class in 2025 (Table 41). A successful gizzard shad eradication was conducted with a light dose of rotenone during February 2022 after shad were first observed in 2013. The catch rate for bluegill was low in 2025 (41.9 fish/hr) and well below the long-term mean (148.2 fish/hr), similar to the low redear sunfish catch rate (24.0 fish/hr) in 2025 compared to the long-term average (95.6 fish/hr; Table 42). There was high incidental mortality of sunfish observed from the rotenone treatment and this likely accounts for the reduced sunfish catch rates in 2023 and 2025. A supplemental stocking of large bluegill occurred annually in June 2023-25 to bolster the population. The largemouth bass catch rate in 2025 (116.8 fish/hr) was slightly below the long-term average (144.2 fish/hr; Table 43). The increase in the catch rate of bass in 2023 can be attributed to the fourfold increase in the catch rate for fish in the < 8.0 in length group over the long-term average; however, these bass didn't show up in the same abundance in the 8.0 – 11.9 in length group in 2025. The PSD index shows a bass fishery that was historically stunted with a few large fish getting through the growth bottleneck, noticeably shifting in 2017-23 towards larger bass with lowered recruitment, likely from the shad introduction (Figure 15). The sunfish population shifted from relatively balanced in 2013-17 to fewer large sunfish in 2019 and 2021, again likely due to shad being introduced. In observing other lakes where shad have been introduced, the bluegill fishery tends to be more negatively affected compared to the redear sunfish population. The 2025 PSD index indicated a sunfish population with lower recruitment than desired, while the largemouth bass PSD value has bounced around in recent samples.

Middleton Mills Long Pond (Kenton County)

The catch rates were moderate in 2025 for bluegill and largemouth bass at Middleton Mills Long Pond (1.2 acres; Table 44). Bluegill in the 6.0 – 7.9 in length group made up the majority of the catch in 2025 (281.4 fish/hr), which was a fourfold increase over the long-term mean for that length group (71.2 fish/hr; Table 45). Redear sunfish were stocked in 2018 to establish a population. The majority of redear sunfish surveyed in 2025 were in the 6.0 – 7.9 in length group. The overall bass catch rate in 2025 (263.5 fish/hr) was near the long-term average (216.2 fish/hr), with the majority of bass sampled in 2025 in the 8.0 – 11.9 in length group (Table 46). The PSD index has been highly variable over the years, with the bass sample size lacking some years to make a precise estimate (Figure 16). However, the 2020-25 samples had a sufficient sample size and indicated low numbers of large bass with abundant stocker sized bass. The sunfish PSD value has been low every year since sampling began in 2010, with the exception of the

2021 and 2025 surveys where there were a considerable number of larger bluegill and redear sunfish sampled.

Middleton Mills Shelterhouse Pond (Kenton County)

Largemouth bass up to the 17 in class were sampled in 2025 at Middleton Mills Shelterhouse Pond (1.2 acres), with bluegill and redear sunfish sampled up to the 7 in class (Table 47). The majority of bluegill and redear sunfish sampled were in the 3.0 – 5.9 in length group, while the catch rate for bluegill and redear sunfish in 6.0 – 7.9 in length group were both above the long-term mean (Table 48). The catch rate for largemouth bass has never been high at the lake, but the 2012-21 samples indicated a major issue with recruitment of bass in the lake (Table 49). Largemouth bass (4 – 14 in) were stocked nearly annually from 2014-22 to supplement the bass population and reduce a crowded sunfish population; however, poor survival of stocked bass or high harvest may have contributed to not seeing a substantial increase in bass numbers until recently (2023-25). The PSD index has consistently indicated a poor sunfish population since sampling began in 2005, while the largemouth bass PSD has bounced around due to low sample sizes for bass nearly every year (Figure 17).

Prisoners Lake (Kenton County)

Bluegill up to the 6 in class and redear sunfish up to the 8 in class were present in the 2025 sample at Prisoners Lake (3.8 acres; Table 50). The overall bluegill catch rate (155.7 fish/hr) was slightly below the long-term average (222.9 fish/hr); with bluegill in the 3.0 – 5.9 making up the majority of the catch (Table 51). Supplemental stockings of large bluegill occurred annually in June 2022-24 to bolster the sunfish population. Redear sunfish were stocked in 2018 and 2019 to establish a population; however, no redear sunfish were sampled in 2019. The redear sunfish catch rate remained low in 2025 with fish in the 6.0 – 7.9 in length group making up the majority of the catch. Largemouth bass in the 12.0 – 14.9 in length group made up the largest proportion of the catch in 2025 with bass distributed through all length groups (Table 52). The catch rate for bass in 2025 was similar to the long-term average in most length groups, with the exception of a slight increase in the catch rate for the 12.0 – 14.9 in length group. A successful gizzard shad eradication was conducted with a light dose of rotenone during January 2017. The fishery has not positively responded as expected to the shad removal to this point. The PSD index lacks an adequate sample size for assessing bass in most years sampled, with sunfish PSD highly variable between years, but overall tending towards few large sunfish (Figure 18).

Brickyard Pond (Knox County)

A light dose rotenone treatment was conducted at Brickyard Pond (9.5 acres) in January 2017 to remove gizzard shad. However, spring sampling in 2017 revealed this effort was unsuccessful. The lake continues to have a low catch rate for largemouth bass and abundant small sunfish in 2025, both typical for a lake with gizzard shad present (Table 53). The catch rate for bluegill in 2025 (347.3 fish/hr) was slightly below the long-term average (428.7 fish/hr), with bluegill in the 3.0 – 5.9 in length group still making up the vast majority of the catch (Table 54). The redear sunfish catch rate in 2025 (24.0 fish/hr) was well below the long-term average (108.0 fish/hr). Largemouth bass were present in all length groups in 2025, with catch rates for bass in the 8.0 – 11.9, 12.0 – 14.9, and $\geq$ 15.0 in length groups all lower than the long-term means (Table 55). To supplement the bass population, 300 largemouth bass (6 – 13 in) were stocked in June 2017, with another 157 largemouth bass (4 – 13 in) in June 2023 after the sample. The PSD indicated a balanced bass population from 2016-25, with the exception of 2021 where too many large bass with low recruitment were observed (Figure 19). The PSD index has been low for sunfish in all years except 2017, indicating few large sunfish available to anglers.

Logan Hubble Park Lake (Lincoln County)

There was a significant fish kill during the summer 2022 due to low oxygen at Logan Hubble Park Lake (9.2 acres). This fish kill significantly reduced catch rates of larger fish in the 2023 and 2025 samples (Table 56). The overall bluegill catch rate in 2025 (154.2 fish/hr) was similar to the long-term mean (188.9 fish/hr), with the majority of the catch consisting of bluegill in the 3.0 – 5.9 in length group (Table

57). No redear sunfish were sampled in the ≥ 8.0 in length group in 2023 and 2025 after the fish kill. The redear sunfish catch in 2025 consisted primarily of fish in the 6.0 – 7.9 in length group with a catch rate was well above the long-term mean. The catch rate of largemouth bass in the 12.0 – 14.9 and > 15.0 in length groups were both below the long-term mean in 2025 (Table 58). The 2022 fish kill eliminated all large bass from the population, but the bass fishery is slowly recovering. The PSD index indicated a sunfish and bass population with lots of large fish with low recruitment 2017-21 with the 2022 fish kill having a devastating effect on the fishery. The lake was added to the FINs program in January 2017.

Whitehall Park Lake (Madison County)

Lake fertilizations began in 2022 to increase productivity at Whitehall Park Lake (6.0 acres) and appear to be having the desired effect as the catch rates of sunfish have increased, and the size structure of largemouth bass is improving (Table 59). The 2025 bluegill catch rate (275.5 fish/hr) was near the long-term mean (264.6 fish/hr), with the bluegill catch rate increasing the last two samples, after being lower than desired from 2014-219 (except for the 2017 sample; Table 60). The 2025 bluegill catch consisted mostly of fish in the 3.0 – 5.9 in length group. Supplemental stockings of large bluegill occurred annually in June 2022-24 to bolster the sunfish population. Redear sunfish were stocked in the fall of 2018 to establish a population, with fish in the 2 – 10 in classes sampled in 2025. The overall catch rate for redear sunfish in 2025 (601.8 fish/hr) was nearly double the long-term mean (313.6 fish/hr). Redear sunfish in the 3.0 – 5.9 in length group made up the highest proportion of the catch in 2025. Chinese mystery snails are present in the lake and likely contribute to the abundant redear sunfish. The overall catch rate for largemouth bass in 2025 (362.3 fish/hr) was slightly below the long-term average (453.6 fish/hr; Table 61). Most largemouth bass sampled in 2025 were in the < 8.0 and 8.0 – 11.9 in length groups; however, there was an increase in catch rates for largemouth bass in the 12.0 – 14.9 and ≥ 15.0 in length groups compared to recent samples. The PSD index varies widely between sampling years (Figure 21). Currently the lake has few large sunfish and bass available to anglers. In June 2019, 100 largemouth bass (4 – 10 in) were removed from Whitehall Park Lake. An additional 210 bass (4 – 12 in) were removed after the 2021 sample, and another 171 largemouth bass (4 – 12 in) after the 2023 sample and stocked in nearby FINs lakes in need of bass. The largemouth bass size structure is starting to trend in the right direction, with additional bass removals in the future likely to benefit the fishery. Grass carp have been stocked in recent years to control aquatic vegetation and keep bank fishing access open.

Maysville-Mason County Recreation Park Lake (Mason County)

Maysville-Mason County Recreation Park Lake (11.6 acres) had gizzard shad prior to a successful shad eradication conducted in February 2017. Bluegill up to the 7 in class, redear sunfish up to the 8 in class and largemouth bass up to the 22 in class were sampled in 2025 (Table 62). The catch rate of bluegill in 2026 (704.6 fish/hr) was slightly above the long-term average (623.0 fish/hr), and still higher than desired (Table 63). Bluegill in the 3.0 – 5.9 in length group continued to make up the majority of the catch. However, the catch rate of bluegill in the 6.0 – 7.9 in length group in 2025 (189.6 fish/hr) was nearly double the long-term mean (96.7 fish/hr). Redear sunfish were stocked in the fall of 2018 to establish a population, with low numbers of fish sampled in 2025. The largemouth bass catch rate in 2025 (221.6 fish/hr) was the highest observed since sampling began in 2014 and above the long-term average (132.9 fish/hr; Table 64). The 2025 bass catch rates were nearly double the long-term average for bass in the 12.0 – 14.9 and ≥ 15.0 in length groups. The lake received a stocking of 400 largemouth bass (5 in) in October 2015, another 425 largemouth bass (4 – 10 in) in March 2018, and an additional 150 (4 – 14 in) bass after the 2021 sample. The PSD index indicates the bass population has lots of large fish in 2025 with low recruitment (Figure 22). The PSD value for sunfish in 2025 was the highest observed since sampling began in 2014.

Carlson Lake (Fort Knox; Meade County)

Bluegill were present up to the 8 in class and redear sunfish up to the 9 in class at Carlson Lake (Fort Knox; 14.0 acres) in the 2025 survey (Table 65). The 2025 catch rate of bluegill was less than half the long-term mean, with fish in the 6.0 – 7.9 in length group making up the highest proportion of the catch (Table 66). The overall catch rate for redear sunfish in 2025 (171.7 fish/hr) was also below the long-term

mean (258.2 fish/hr), with the catch rate of fish in the 6.0 – 7.9 in length group above the long-term average and making up the majority of the catch. Largemouth bass in the 8.0 – 11.9 in length group made up the majority of the catch, with the 2025 overall catch rate (185.6 fish/hr), similar to the 2023 catch rate (183.6 fish/hr), but below the long-term mean (246.3 fish/hr; Table 67). The PSD index indicated a balanced sunfish population from 2013-21, with the sunfish PSD value improving in 2025 from a low in 2023 (Figure 23). The bass population was nearly balanced from 2015-19 and 2023-25, but indicated a stunted bass population from 2011-13 and 2021. Grass carp were stocked in 2014 and 2023 to control aquatic vegetation and keep bank fishing access open. The lake had a ring of stonewort and chara around the perimeter of the lake during the 2025 sample.

Easy Walker Park Pond (Montgomery County)

In August 2019, a near complete fish kill occurred at Easy Walker Park Pond (1.6 acres), due to low oxygen after a lake turnover. Another significant fish kill occurring during the summer 2022 due to low oxygen. An aeration system was installed in 2023 to alleviate oxygen issues. Adult bluegill, redear sunfish and largemouth bass were restocked in October 2019 to restore the fish population. Bluegill up to the 7 in class, redear sunfish up to the 9 in class and largemouth bass up to the 17 in class were sampled in 2025 (Table 68). The 2025 bluegill catch rate (413.2 fish/hr) was above the long-term mean (272.5 fish/hr) with the majority of the catch in the 6.0 – 7.9 in length group (Table 69). Supplemental stockings of large bluegill occurred annually in June 2022-25 to bolster the sunfish population and provide angling opportunities for a kid's fishing event. The redear sunfish catch rate in 2025 (35.9 fish/hr) was below the long-term average and the lowest observed since redear sunfish were stocked. The 2025 largemouth bass catch rate (455.1 fish/hr) was identical to the 2023 catch rate and above the long-term average (354.0 fish/hr), with bass in the 8.0 – 11.9 in length group making up the majority of the catch (Table 70). A total of 40 largemouth bass (4 – 12 in) were removed after the 2021 sample and an additional 72 bass (5 – 12 in) after the 2023 sample. Removing additional largemouth bass in the 6 – 10 in classes would likely improve the crowded bass population. The PSD index in 2021-25 indicates a bass population with few large fish, while the sunfish population has abundant large fish with low recruitment (Figure 24).

TANDEM HOOP NET SAMPLING

Tandem hoop net sampling for channel catfish and channel/blue hybrid catfish was conducted at 18 FINs lakes in October 2025. Tandem hoop net sets consisted of three nets per set, each 11 ft long with one-inch bar mesh and seven fiberglass hoops with the throats constricted. Three tandem sets per lake were soaked for 72-hr before checking. Each net was baited with 1/3 of a commercially prepared cheese log (about 2-lbs per net) from Nets and More Company. Care was taken not to set nets below the thermocline. Catfish were measured to the nearest 0.1 in and weighed to the nearest 0.01 pound. Relative weight (W_r) was used to determine condition of catfish at each lake. However, differentiating between channel catfish and channel/blue hybrid catfish was difficult and time consuming in the field. Therefore, channel catfish and the hybrid catfish were grouped together for analysis and the channel catfish relative weight equation was used.

Anderson County Community Park Lake (Anderson County)

The catch rate of channel/hybrid catfish was moderate in 2025 at Anderson County Community Park Lake (1.0 acre) at 30 fish/set (Table 71). The 2025 catch rate was the highest of the five samples conducted at the lake since surveying began in 2013, with all previous samples $\leq$ 5 fish/set. Nearly 40% of catfish sampled were $\geq$ 15 in and 95% $\geq$ 12 in in the 2025 sample. Relative weights of catfish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups were lower than desired in 2025 at 83 and 85 respectively (Table 72). Anderson County Community Park Lake is normally stocked with 800 catfish annually as a primary FINs lake; however, the lake was only stocked with 600 catfish in 2025 due to flooding at the hatchery and a production shortfall.

Camp Ernst Lake (Boone County)

The catch rate for channel/hybrid catfish at Camp Ernst Lake (25.0 acres) in 2025 (78.0 fish/set) was similar to the 2022 catch rate (81.7 fish/set; Table 73). The 2025 catch rate was also comparable to samples in 2013 (83.3 fish/set) and 2017 (112.7 fish/set), but lower than the 234.0 fish/set sampled in 2014. The low of 6.3 fish/set surveyed in 2020 appears to be an outlier and the catch rate was well below the other samples. Relative weights decreased by length group, from a high of 96 for catfish in the 7.0 – 10.9 in length group to a low of 82 for catfish in the 16.0 – 23.9 in length group (Table 74). The relative weights were considerably lower in 2022 for all length groups compared to the 2013-20 samples. The relative weights in 2025 were similar for all length groups to the 2013-20 samples. Catfish appear to be abundant in the lake with relative weights remaining stable, slightly lower than desired. Catfish were sampled up to 22 in class; however, a significant proportion of the population is small with 29% of fish sampled < 13 in. In the 2022 sample, 39% of the catfish population was < 13 in. Camp Ernst Lake is one of the larger FINs lakes, fish likely have a place to disperse, delaying harvest by anglers. Camp Ernst Lake is a primary FINs lake which normally receives 5,000 catfish annually; however, the lake was only stocked with 3,100 catfish in 2025 due to flooding at the hatchery and a production shortfall.

Robert J. Barth Lake (Campbell County)

The catch rate of catfish in 2025 (12.7 fish/set) was lower than the 2023 catch rate (34.7 fish/set) at Robert J. Barth Lake (3.7 acres; Table 75). Catfish ranged in size from the 7 – 20 in classes with 68% of fish sampled < 13 in. Relative weights were low for catfish in the 11.0 – 15.9 and 16.0 – 23.9 in classes at 81 and 84 respectively, while smaller catfish in the 7.0 – 10.9 in length group had a moderate relative weight of 87 (Table 76). These relative weights were similar to the 2023 sample for all length groups. Spring electrofishing data and hoop net bycatch indicate forage may be limited and a contributing factor to the low relative weights of catfish. Robert J. Barth Lake normally receives 2,800 catfish annually as a primary FINs lake; however, the lake was only stocked with 1,800 catfish in 2025 due to flooding at the hatchery and a production shortfall.

Kentucky Horse Park Rolex Lake (Fayette County)

The catch rate of catfish has continued to decline at Kentucky Horse Park Rolex Lake (5.6 acres) but was still moderate with 38.3 fish/set sampled in 2025 (Table 77). Catfish ranged in size from the 9 – 24 in classes in the 2025 sample. The size structure of catfish has drastically improved over the years, but declined slightly in 2025 with 30% of catfish sampled in 2025 < 13 in. Catfish < 13 in made up 82%, 76%, and 61%, and 16% of catfish sampled in 2017, 2018, 2021 and 2023 respectively. Catfish stockings at the lake as part of the FINs program began in 2016. Either the park manager had been overstocking the lake for years, or natural reproduction of channel catfish was occurring. A total of 800 (8 – 11 in) catfish were removed in November 2017 after the sample, another 559 catfish (8 – 12 in) after the 2018 sample and 250 catfish (9 – 14 in) after the 2021 sample. Relative weights of catfish in the 11.0 – 15.9 in length group was 83 in 2025, similar to past samples and indicating limited food availability (Table 78). The relative weight for the 16.0 – 23.9 in length group of 93 was considerably higher than past samples. Kentucky Horse Park Rolex Lake is a secondary FINs lake and normally receives 2,200 fish annually but only received 1,200 catfish in 2025 due to flooding at the hatchery and a production shortfall. The reduced stocking was also based off the recommendation from past samples to reduce stocking rates in the short term until relative weights and size structure improved. Catfish stocking numbers were 1,600, 724, and 1,200 in 2022-24 respectively after production shortfalls.

Jacobson Park Lake (Fayette County)

The catch rate of channel/hybrid catfish at Jacobson Park Lake (46.3 acres) was moderate in 2025 with 44.0 fish/set sampled (Table 79). This 2025 catch rate was comparable to the 2015 and 2020 catch rates (31.7 and 18.3 fish/set respectively), but considerably lower than the 2014, 2017 and 2023 samples (156.3, 166.3 and 131.7 fish/set respectively). In the 2025 sample only 8% of catfish sampled were < 13 in compared to 79% of catfish sampled in 2023 in the same size range. The size structure of small catfish in 2023 can likely be attributed to several stockings of channel catfish where grading did not occur

and a large proportion of stocked fish were < 13 in. Relative weights were acceptable for fish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups at 87 and 93 respectively (Table 80). Jacobson Park Lake is a primary FINs lake which normally receives 9,200 catfish annually; however, the lake was only stocked with 5,900 catfish due to flooding at the hatchery and a production shortfall. Bullhead catfish have been sampled in the past in this lake in relatively low abundance, but in the 2025 hoop net survey one set captured 230 bullheads as bycatch.

Kess Creek Park Lake (Graves County)

The catch rate of channel/hybrid catfish was moderate (22.3 fish/set) at Kess Creek Park Lake (2.1 acres) in 2025 with fish ranging in size from the 9 – 18 in classes (Table 81). Nearly 60% of catfish sampled in 2025 were < 13 in, which was similar to the 50% of the fish sampled in 2022 in the same size range. Relative weights for catfish in the 7.0 – 10.9 and 11.0 – 15.9 in length groups were 84 and 82 respectively in 2025 and similar to the 2022 relative weights for the same length groups (Table 82). The relative weight for catfish in the 16.0 – 23.9 in length group in 2025 was 77 and has declined in each sample since the first survey was conducted in 2019. Kess Creek Park Lake was added to the FINs program in 2017 and receives 1,600 catfish annually as a primary FINs lake. The catfish size structure could be improved by grading off smaller catfish in future stockings.

James D. Beville Park Lake (Grayson County)

The catch rate of channel/hybrid catfish at James D. Beville Park Lake (3.1 acres) was moderate with 34.7 fish/set sampled in 2025 (Table 83). The 2025 catch rate was lower than the previous two samples (110.0 fish/set in 2021 and 78.7 fish/set in 2023). Catfish in the 2025 sample ranged in size from the 10 – 22 in classes with only 14% of fish < 13 in. The relative weights have continued to improve for all length groups in 2025 compared to the 2021 and 2023 samples (Table 84). Relative weights were low in the 2021 and 2023 samples and cause for concern. James D. Beville Park Lake is a primary FINs lake and normally receives 2,400 catfish annually but only received 1,200 catfish in 2025 due to flooding at the hatchery and a production shortfall. The reduced stocking was based off the recommendation from past samples to reduce stocking rates in the short term until relative weights and size structure improved. Catfish stocking numbers were 1,450 in 2023 and 1,100 in 2024 after production shortfalls. The reduced stocking rate improved size structure and relative weights of catfish. This lake will be moved to a secondary FINs designation in 2026 and receive 1,200 catfish annually.

Rotary Park Lake (Hickman County)

The catch rate of channel/hybrid catfish at Rotary Park Lake (2.1 acres) was lower in 2025 (13.0 fish/set), compared to the two previous samples in 2019 and 2022 (46.0 and 28.7 fish/set respectively; Table 85). Catfish ranged in size from the 8 – 21 in classes with 38% of catfish sampled < 13 in which was nearly identical to the 41% in 2019 and 42% of catfish sampled in 2022 of the same size. Most catfish were in the 11.0 – 15.9 in length group, which had a relative weight of 84 (Table 86). The relative weight was slightly higher for catfish in the 16.0 – 23.9 in length group at 90, while the small catfish in the 7.0 – 10.9 in length group had the highest relative weight of 92 with a large standard error. Rotary Park Lake was added to the FINs program in 2017 and receives 800 catfish annually as a primary FINs lake. The catfish size structure could be improved by grading off smaller catfish in future stockings.

Madisonville City Park Lake South (Hopkins County)

The catch rate of catfish in 2025 (17.7 fish/set) was lower than the 2019 and 2022 catch rates (96.0 and 94.3 fish/set respectively) at Madisonville City Park Lake South (25.9 acres; Table 87). The lake was first sampled in 2015 (0.7 fish/set), before the lake was added to the FINs program. The 2015 sample was to ensure FINs catfish were being stocked in the correct lake within the park as the North Lake was a FINs lake from 2012-16. Catfish sampled in 2025 ranged in size from the 12 – 29 in classes with 91% of fish sampled $\geq$ 15 in. Relative weights in 2025 were similar to the 2019 and 2022 samples for all length groups (Table 88). Relative weights were in the mid 80's for catfish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups and 100 for catfish in the $\geq$ 24.0 in length group. Madisonville City Park Lake South is a

secondary FINs lake and normally receives two stockings annually totaling 2,500 catfish; however, the lake was only stocked with 1,850 catfish in 2025 due to flooding at the hatchery and a production shortfall.

Lake Mingo (Jessamine County)

The catch rate of hybrid/channel catfish continued to be low at Lake Mingo (2.5 acres), with 8.7 fish/set sampled in 2025 (Table 89). This catch rate was comparable to the 2013, 2017, 2020 and 2022 samples (3.0, 4.3, 9.0, and 3.7 fish/set respectively), but lower than the 28.0 fish/set sampled in 2014. Catfish sampled in 2025 ranged in size from the 13 – 21 in classes. Relative weights were good (low 90's) for catfish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups (Table 90). Lake Mingo normally receives 2,000 catfish annually as a primary FINs lake; however, the lake was only stocked with 1,500 catfish in 2025 due to flooding at the hatchery and a production shortfall.

Southland Church Lake (Jessamine County)

The catch rate of hybrid/channel catfish continued to be low at Southland Church Lake (2.6 acres), with 12.3 fish/set sampled in 2025 (Table 91). This catch rate was comparable to the 2019 and 2022 samples (8.7 and 7.7 fish/set respectively). Catfish ranged in size from the 9 – 23 in classes with 27% of catfish sampled < 13 in in 2025. This was an improvement from the 43% of catfish sampled in 2022 of the same size. The relative weight was acceptable for all length groups, ranging from 86 for catfish in the 11.0 – 15.9 in length group to 95 for catfish in the 16.0 – 23.9 in length group (Table 92). The lake is a primary FINs lake and normally receives 2,000 catfish annually; however, the lake was only stocked with 1,300 catfish in 2025 due to flooding at the hatchery and a production shortfall. There doesn't appear to be an overabundance of catfish present, with stocked fish likely harvested soon after stocking.

Middleton Mills Long Pond (Kenton County)

The catch rate of hybrid/channel catfish was moderate at Middleton Mills Long Pond (1.2 acres), with 38.7 fish/set sampled in 2025 (Table 93). The 2025 catch rate was similar to the 2016 and 2019 samples (40.0 and 62.0 fish/set respectively) and higher than the 5.0 fish/set captured in 2022. The catfish size structure continues to skew towards smaller fish with 55% of catfish sampled in 2025 < 13 in compared to 89%, 55%, 43% and 73% of catfish sampled of the same size in the 2012, 2016, 2019 and 2022 samples respectively. Relative weights decreased by length group with catfish in the 7.0 – 10.9 in length group having a relative weight of 96 and catfish in the 16.0 – 23.9 in length group having a relative weight of 84 (Table 94). Relative weights in 2025 were similar to the 2022 sample for catfish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups, while relative weights improved in 2025 for catfish in the 7.0 – 10.9 in length group. Middleton Mills Long Pond is a primary FINs lake and receives 1,200 catfish annually.

Middleton Mills Shelterhouse Pond (Kenton County)

The catch rate of channel/hybrid catfish was moderate at Middleton Mills Shelterhouse Pond (1.2 acres) in 2025 with 22.0 fish/set sampled (Table 95). A substantial proportion of catfish from past samples were small, ranging from 40-75% of the catfish sampled annually < 13 in in the 2011-22 samples. That proportion of < 13 in catfish dropped to 27% of the total catfish sampled in 2025. The relative weights for catfish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups remained lower than desired in 2025 (79 and 83 respectively; Table 96). Middleton Mills Shelterhouse Pond is a primary FINs lake and receives 1,200 catfish annually. The condition of catfish was poor and should be closely monitored in subsequent years. Sampling numbers have never been high at this lake, but relative weights have been on the decline in recent years.

Prisoners Lake (Kenton County)

The catch rate of channel/hybrid catfish was moderate at Prisoners Lake (3.8 acres) in 2025 with 28.7 fish/set sampled (Table 97). Catfish netted in 2025 ranged in size from the 8 – 26 in classes with 40% of fish < 13 in. The size structure of catfish sampled in 2025 was similar to the 2021 and 2023 samples with

43% and 38% of catfish sampled < 13 in in those respective years. In the 2013 and 2016 samples 83% and 69% of catfish sampled were < 13 in. Relative weights in 2025 were drastically improved for catfish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups with values in the low 90's for each length group (Table 98). In recent samples the relative weights had ranged from the mid 70's to low 80's for both length groups and was cause for concern. Prisoners Lake is a secondary FINs lake and normally receives 1,600 catfish annually but only received 900 catfish in 2025 due to flooding at the hatchery and a production shortfall. A total of 1,200 catfish were stocked annually in 2023 and 2024 after production shortfalls. The reduction in stocking numbers improved relative weights of catfish at the lake while the size structure has remained stable in recent samples.

Whitehall Park Lake (Madison County)

The catch rate of channel/hybrid catfish at Whitehall Park Lake (6.0 acres) in 2025 (52.3 fish/set), was similar to the 2017 and 2022 samples (54.3 and 54.0 fish/set respectively; Table 99). Catfish ranged in size from the 9 – 22 in classes in the 2025 sample, with only 25% of catfish < 13 in. The relative weights had improved for all length groups of catfish compared to the 2022 sample, with catfish in the 11.0 – 15.9 in length group having the lowest relative weight of 88 (Table 100). Catfish in the 16.0 – 23.9 in length group had a relative weight of 96 and indicated a population where overcrowding isn't an issue. Whitehall Park Lake is a primary FINs lake which normally receives 4,800 catfish annually; however, the lake was only stocked with 3,100 catfish in 2025 due to flooding at the hatchery and a production shortfall.

Mike Miller Park Lake (Marshall County)

The catch rate of channel/hybrid catfish was moderate at Mike Miller Park Lake (3.9 acres) in 2025 with 44.0 fish/set sampled (Table 101). The catch rate in 2025 was the lowest since sampling began in 2013, with catch rates of 223.0, 100.0, 100.5, and 91.7 fish/set respectively in the 2013, 2016, 2019 and 2022 samples. The catfish size structure had a high proportion of small catfish in 2025 after improving in recent years with 58% of catfish sampled < 13 in in 2025 compared to 71%, 37%, 23% and 45% in the 2013, 2016, 2019 and 2022 samples respectively. The relative weights had improved in 2025 for catfish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups, with relative weights ranging from 84-87 for all length groups (Table 102). In recent samples, catfish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups had relative weights ranging from the high 70's to low 80's and indicated a crowded catfish population with limited food. Mike Miller Park Lake was a primary FINs lake and received 3,200 catfish annually from 2010-16. However, due to the high catch rate in 2013 and 2016, in conjunction with low relative weights observed in 2016, the lake was dropped to a secondary FINs lake and catfish stocking numbers cut to 1,600 annually beginning in 2017. Unlike many FINs lakes of similar size, stockpiling of catfish seemed to be occurring and stocking rates were reduced further with 700 catfish stocked in 2023-25. The catfish size structure could be improved by grading off smaller catfish in future stockings.

Lake Montgomery (McCracken County)

The catch rate for channel/hybrid catfish at Lake Montgomery (5.5 acres; formerly Bob Noble Park Lake) was high (93.0 fish/set) in 2025, with catfish ranging in size from the 9 – 18 in classes (Table 103). The 2025 catch rate was similar to the 2022 catch rate (134.0 fish/set), but considerably higher than catch rates in 2016 and 2019 (13.3 and 44.0 fish/set respectively). In the 2025 sample, 36% of catfish sampled were < 13 in compared to 78%, 18%, 6%, and 58% of fish surveyed in the 2013, 2016, 2019 and 2022 samples respectively. Catfish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups had acceptable relative weights of 85 and 86 while catfish in the 7.0 – 10.9 in length group had a relative weight of 92 with a large standard error (Table 104). Relative weights were similar for all length groups of catfish compared to past samples. Lake Montgomery is a primary FINs lake which normally receives 4,400 catfish annually; however, the lake was only stocked with 3,900 catfish in 2025 due to flooding at the hatchery and a production shortfall. The catfish size structure could be improved by grading off smaller catfish in future stockings.

Easy Walker Park Pond (Montgomery County)

The catch rate of hybrid/channel catfish continued to be low at Easy Walker Park Pond (1.6 acres) with 11.0 fish/set sampled in 2025 (Table 105). The catch rate of catfish has been low since surveying began in 2014 with the catch rate < 10 fish/set in the previous four samples. The relative weight of catfish in the 11.0 – 15.9 in length group was 83 in 2025, considerably lower than past samples and lower than desired despite a low overall catch rate (Table 106). Relative weights for the other length groups of catfish were in the 90's in 2025. Easy Walker Park Pond is a primary FINs lake and receives 1,600 catfish annually. There was a near total fish kill in the summer of 2019 and another significant kill in summer 2022 due to low dissolved oxygen in the pond. An aeration system was installed in 2023 to alleviate oxygen issues.

Table 1. 2025 yearly summary of sampling conditions by waterbody and date.

Waterbody	Date	Time (24-hr)	Weather	Water temp (F)	Water level	Secchi (in)	Lake conditions/pertinent sampling information
Millennium Park Pond	5/8/2025	900	Cloudy	67	Full	72	No aquatic vegetation, several trout observed
Logan Hubble Park Lake	5/8/2025	1000	Sunny	66	Full	66	Fishery recovering from fish kill in summer 2022, no aquatic vegetation, lake was flooded this spring from beavers
Anderson County Community Park Lake	5/8/2025	1300	Cloudy	67	Full	24	Some filamentous algae present, grass carp and rainbow trout observed, two common carp removed
Fisherman's Park Lake #3	5/12/2025	900	Cloudy	70	Full	72	Water willow and cattails around perimeter, some filamentous algae present
Fisherman's Park Lake #4	5/12/2025	1000	Cloudy	71	Full	60	Water willow and cattails around perimeter, bass fry observed, sunfish on beds
Cherokee Park Lake	5/12/2025	1100	Cloudy	72	Full	72	Cattails and pickerelweed around perimeter limit bank access, needs renovation, clear water with fish avoiding gear
Carlson Lake	5/12/2025	1300	Sunny	72	Full	66	Stonewort and chara present, sunfish on beds
Whitehall Park Lake	5/14/2025	800	Sunny	69	Full	42	Pondweed, water primrose, cattails and filamentous algae present but not problematic, fertilized pond after sample
Jacobson Park Lake	5/14/2025	1000	Cloudy	69	Full	18	No aquatic vegetation, gizzard shad and common carp abundant
Brickyard Pond	5/15/2025	1000	Sunny	76	Full	26	No vegetation, shad abundant and common carp present, estimated 40 dead catfish floating
Kingdom Come State Park Lake	5/15/2025	1400	Sunny	73	Full	86	Some filamentous algae present but not problematic, lake fertilized after sample, six anglers, only room for one run
Lake Pollywog	5/16/2025	900	Cloudy	73	Full	39	Ring of naiad present around perimeter, 25 grass carp stocked after sample, removed three common carp
Prisoners Lake	5/16/2025	1100	Cloudy	71	Full	36	Yellow floating heart present around 5% of perimeter after herbicide treatment in 2022 by city, one common carp removed
Middleton Mills Shelterhouse Pond	5/16/2025	1300	Cloudy	74	Full	18	Minimal amount of water primrose present, turbid
Middleton Mills Long Pond	5/16/2025	1300	Cloudy	72	Full	39	Some cattails and black willows limit bank access, one common carp removed
Leary Lake	5/16/2025	1400	Sunny	74	Full	102	No aquatic vegetation, several large grass carp observed, lake fertilized after sample, bass genetics taken
Easy Walker Park Pond	5/19/2025	800	Sunny	71	Full	18	No aquatic vegetation, recovering from fall 2019 and summer 2022 fish kills, aeration installed
Flemingsburg Old Reservoir	5/19/2025	1000	Sunny	72	Full	60	Aquashade was used, no aquatic vegetation present
Maysville-Mason County Rec Park Lake	5/19/2025	1200	Sunny	74	Full	30	No aquatic vegetation, no gizzard shad observed after removal
Waverly Park Lake	5/20/2025	900	Cloudy	75	Full	36	No shad observed after rotenone treatment, some filamentous algae and naiad present
Camp Ernst Lake	5/22/2025	1100	Cloudy	68	Full	54	Naiad, water primrose, filamentous algae, duckweed present, common carp observed, 50 additional grass carp stocked
William F. Miles Angler Lake	5/30/2025	900	Sunny	69	Full	42	No shad observed after rotenone treatment, ring of water primrose around perimeter
Tom Wallace Park Lake	5/30/2025	1100	Sunny	71	Full	60	Four leaf water clover and water primrose present, lake fertilized after sample, much of habitat removed during renovation
Prisoners Lake	10/9/2025	1000	Sunny	71	3' Low		No aquatic vegetation, water low from irrigation, small black and white crappie and bluegill
Camp Ernst Lake	10/9/2025	1200	Sunny	71	Full		No aquatic vegetation, good water color
Southland Church Lake	10/10/2025	800	Sunny	64	Full		No aquatic vegetation, small black crappie and bluegill, decent redear sunfish
Lake Mingo	10/10/2025	900	Sunny	63	Full		Creeping water primrose present around perimeter, small black crappie and bluegill
Jacobson Park Lake	10/10/2025	1000	Sunny	64	Full		No aquatic vegetation, 230 bullhead catfish in second set, several common carp, nice black and white crappie
Anderson County Community Park Lake	10/10/2025	1200	Sunny	68	Full	30	No aquatic vegetation, nice black crappie and redear sunfish
Robert J. Barth Lake	10/16/2025	1100	Sunny	67	Full	18	No aquatic vegetation, first net in one set was drug up on bank, other two nets caught catfish
Middleton Mills Shelterhouse Pond	10/12/2025	1200	Sunny	65	2' Low	24	No aquatic vegetation, small sunfish and white crappie
Middleton Mills Long Pond	10/13/2025	1300	Sunny	64	Full	30	No aquatic vegetation present
Whitehall Park Lake	10/14/2025	900	Sunny	65	Full	30	Some creeping water primrose present, good water color, lots of bluegill bycatch
Easy Walker Park Pond	10/17/2025	1000	Sunny	64	Full	36	No aquatic vegetation present, nice redear sunfish
Kentucky Horse Park Rolex Lake	10/17/2025	1200	Sunny	66	Full	30	No aquatic vegetation present, aquashade used, decent redear sunfish present
James D. Beville Park Lake	10/23/2025	1000	Sunny	59	2' Low	36	Naiad and creeping water primrose present, water green and low, city was dredging upper end of lake
Madisonville City Park Lake South	10/23/2025	1200	Sunny	65	2' Low	78	No aquatic vegetation present, nice redear sunfish
Mike Miller Park Lake	10/23/2025	1400	Sunny	66	2' Low	42	Some creeping water primrose present, nice redear sunfish and few nice white crappie
Lake Montgomery	10/24/2025	800	Sunny	62	2' Low	36	No aquatic vegetation present, small sunfish present as bycatch
Rotary Park Lake	10/24/2025	1000	Sunny	64	2' Low	24	No aquatic vegetation present, very little bycatch
Kess Creek Park Lake	10/24/2025	1100	Cloudy	61	2' Low	42	No aquatic vegetation present, yellow bullhead, yellow bass and small white crappie present

Table 2. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Anderson County Community Park Lake on 8 May 2025. Standard errors were not calculated because only one sampling run could be completed.

	Inch class																			
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE
Bluegill	1	1		26	41	11													80	479.0
Largemouth bass			2	3				4	3	4	1								17	101.8
Channel catfish							1		2	1	1	1			1			1	9	53.9
Redear sunfish							2												2	12.0
Yellow bass						2	2	1											5	29.9

uftg05ac.d25

Table 3. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-25) and redear sunfish (2019-25) collected at Anderson County Community Park Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	12.0	191.6	24.0	6.0	
2012	473.1	77.8	12.0		562.9
2013		640.7			640.7
2015	12.0	29.9	12.0		53.9
2017	65.9	287.4	95.8		449.1
2019			65.9		65.9
2021	47.9	317.4	143.7		509.0
2023	77.8	197.6	95.8		371.3
2025	6.0	161.7	311.4		479.0
Mean	77.2 (50.4)	211.6 (64.5)	84.5 (32.7)	0.7 (0.7)	373.9 (70.6)
Redear					
2019		6.0	137.7	12.0	155.7
2021		6.0	41.9	29.9	77.8
2023		41.9	12.0		53.9
2025				12.0	12.0
Mean		13.5 (9.6)	47.9 (31.2)	13.5 (6.2)	74.9 (30.2)

uftg05ac.d10, uftg04ac.d12, uftg05ac.d13-d25

Table 4. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Anderson County Community Park Lake from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2010	18.0	53.9	47.9	107.8	227.5
2012	131.7	41.9	24.0	53.9	251.5
2013	149.7	41.9	41.9	89.8	323.4
2015	107.8	113.8	71.9	35.9	329.3
2017	125.8	143.7	71.9		341.3
2019	12.0	125.8	125.8		263.5
2021	6.0	113.8	107.8		227.5
2023	107.8	29.9	18.0		155.7
2025	29.9	65.9	6.0		101.8
Mean	76.5 (19.6)	81.2 (14.3)	57.2 (13.6)	31.9 (14.3)	246.8 (26.9)

uftg05ac.d10, uftg04ac.d12, uftg05ac.d13-d25

Table 5. Length frequency and CPUE (fish/hr) of fish collected in three, 10-min electrofishing runs at Camp Ernst Lake on 22 May 2025.

	Inch class																				
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	Std. error
Bluegill	38	27	12	1	5	19														102	203.6	30.7
Largemouth bass			6	3	5	1	12	19	35	39	10	4								134	267.5	52.0
Channel catfish										1			4	1	3	3	4	2	2	20	39.9	14.0
Redear sunfish	1	2	1			5	5	2												16	31.9	5.3
Longear sunfish					2															2	4.0	4.0
Green sunfish					1															1	2.0	2.0
Warmouth				1	1	3														5	10.0	5.3

uftg05ce.d25

Table 6. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2011-25) and redear sunfish (2019-25) collected at Camp Ernst Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2011	27.9 (14.4)	331.3 (10.6)	155.7 (72.6)	2.0 (2.0)	517.0 (73.0)
2013	8.0 (4.0)	89.8 (27.7)	8.0 (5.3)		105.8 (68.2)
2015	12.0 (0.0)	110.8 (62.9)	6.0 (6.0)		128.4 (68.9)
2017	22.0 (11.1)	289.4 (55.9)	215.6 (44.9)		527.0 (93.6)
2019		55.9 (5.3)	107.8 (27.4)		163.7 (32.1)
2021		43.9 (23.0)	85.8 (20.3)	51.9 (13.1)	181.6 (26.4)
2023	12.0 (3.5)	10.0 (5.3)	20.0 (5.3)	18.0 (6.0)	59.9 (9.2)
2025	75.9 (46.4)	79.8 (30.2)	47.9 (22.7)		203.6 (30.7)
Mean	20.1 (7.4)	127.1 (25.7)	84.1 (18.3)	9.4 (4.1)	240.6 (39.8)
Redear					
2019		10.0 (2.0)	8.0 (2.0)		18.0 (3.5)
2021		4.0 (4.0)		20.0 (14.4)	24.0 (18.3)
2023					0.0 (0.0)
2025	2.0 (2.0)	6.0 (0.0)	10.0 (4.0)	14.0 (2.0)	31.9 (5.3)
Mean	0.5 (0.5)	5.0 (1.4)	4.5 (1.7)	8.5 (4.1)	18.5 (5.4)

uftg05ce.d11, uftg04ce.d13, uftg05ce.d15-25

Table 7. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Camp Ernst Lake from 2011-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2011	97.8 (38.1)	63.9 (12.1)	75.9 (15.6)	22.0 (5.3)	259.5 (39.8)
2013	227.5 (22.7)	107.8 (33.0)	49.9 (14.0)	18.0 (0.0)	403.2 (68.2)
2015	32.9 (3.0)	68.9 (15.0)	83.8 (24.0)		185.6 (41.9)
2017	45.9 (26.0)	61.9 (11.1)	41.9 (0.0)	10.0 (4.0)	159.7 (40.1)
2019	311.4 (12.0)	143.7 (48.8)	37.9 (12.1)	20.0 (2.0)	513.0 (57.5)
2021	201.6 (43.2)	283.4 (91.6)	26.0 (10.6)	4.0 (2.0)	515.0 (139.8)
2023	77.8 (24.9)	347.3 (105.9)	33.9 (14.0)	4.0 (4.0)	463.1 (146.4)
2025	29.9 (3.5)	209.6 (39.9)	27.9 (11.1)		267.5 (52.0)
Mean	132.3 (22.5)	164.8 (27.8)	45.6 (5.6)	10.2 (2.0)	352.8 (38.5)

uftg05ce.d11, uftg04ce.d13, uftg05ce.d15-25

Table 8. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Millennium Park Pond on 8 May 2025. Standard errors were not calculated because only one sampling run could be completed.

	Inch class																	
Species	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Bluegill	2		1	6													9	53.9
Largemouth bass	4	4	9	1	7	18	9	6	7	8	6	1	1			1	82	491.0
Redear sunfish					3	4	1										8	47.9

uftg05mi.d25

Table 9. Electrofishing CPUE data (fish/hr) for each length group of bluegill and redear sunfish collected at Millennium Park Pond from 2011-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2011	431.1	1,197.6	95.8		1,724.6
2013	359.3	1,173.7	59.9		1,592.8
2015	12.0	251.5	772.5		1,035.9
2017		604.8	53.9		658.7
2019	6.0	335.3	77.8		419.2
2021		107.8	119.8	18.0	245.5
2023		1,006.0	65.9	6.0	1,077.8
2025		12.0	6.0	35.9	53.9
Mean	101.1 (64.6)	586.1 (170.6)	156.4 (88.8)	7.5 (4.6)	851.1 (216.5)
Redear					
2011		155.7		6.0	161.7
2013		12.0	65.9	6.0	83.8
2015			6.0	35.9	41.9
2017		18.0	83.8	6.0	107.8
2019		6.0	18.0	24.0	47.9
2021			24.0	155.7	179.6
2023		41.9		41.9	83.8
2025				47.9	47.9
Mean		29.2 (18.8)	24.7 (11.5)	40.4 (17.5)	94.3 (18.6)

uftg05mi.d11-25

Table 10. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Millennium Park Pond from 2011-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2011	95.8	41.9	29.9	12.0	179.6
2013	95.8	59.9	41.9	6.0	203.6
2015	35.9	89.8	71.9	47.9	245.5
2017	41.9	137.7	18.0	47.9	245.5
2019		95.8	119.8	12.0	227.5
2021		47.9	65.9	89.8	203.6
2023	6.0	65.9	125.8	47.9	245.5
2025	101.8	209.6	125.8	53.9	491.0
Mean	47.2 (15.8)	93.6 (19.9)	74.9 (15.6)	39.7 (10.0)	255.2 (34.8)

uftg05mi.d11-d25

Table 11. Length frequency and CPUE (fish/hr) of fish collected in four, 10-min electrofishing runs at Jacobson Park Lake on 14 May 2025.

	Inch class																								Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	CPUE	error
Bluegill	10	67	306	205	34																		622	931.1	207.2
Largemouth bass		1	8	6		1	2	1	2	2	1	3	4	4	8	5	3	1					52	77.8	7.7
Channel catfish											1			1	1		2	1	1			1	8	12.0	10.1
Black bullhead						6	5	2															13	19.5	9.9
Green sunfish	2	5	6																				13	19.5	3.8
Redear sunfish				2	3	1																	6	9.0	5.7
Longear sunfish			5	36	3																		44	65.9	28.0
Orangespotted sunfish		1	1																				2	3.0	3.0
White crappie			2	7	1	1						1											12	18.0	6.5
Black crappie				2	4	1	1																8	12.0	8.1

uftg05jp.d25

Table 12. Electrofishing CPUE data (fish/hr) for each length group of bluegill collected at Jacobson Park Lake from 2013-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
2013	16.8 (6.4)	1,121.0 (213.4)	79.0 (14.8)		1,216.8 (227.5)
2015	2.0 (2.0)	415.2 (205.7)	57.9 (31.4)		475.1 (235.8)
2017	4.0 (4.0)	195.6 (36.6)	12.0 (3.5)		211.6 (42.7)
2019	27.9 (13.1)	499.0 (83.4)	35.9 (9.2)		562.9 (73.6)
2021	28.4 (8.9)	534.4 (133.7)	12.0 (6.5)		574.9 (147.7)
2023	79.8 (38.2)	598.8 (232.4)	14.0 (7.2)		692.6 (268.5)
2025	15.0 (3.9)	865.3 (185.4)	50.9 (22.7)		931.1 (207.2)
Mean	24.0 (6.4)	653.2 (85.4)	40.3 (7.6)		717.4 (92.6)

uftg05jp.d13-d25

Table 13. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Jacobson Park Lake from 2001-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2001	14.4 (3.0)	38.4 (6.3)	16.0 (4.6)	17.6 (6.5)	86.4 (17.0)
2003	11.0 (5.5)	24.0 (4.9)	13.0 (5.7)	2.0 (1.2)	50.0 (12.9)
2004	5.0 (3.8)	23.0 (5.8)	17.0 (1.0)	5.0 (3.0)	50.0 (9.6)
2005	21.5 (6.3)	23.0 (5.2)	24.5 (2.9)	18.0 (3.9)	87.0 (5.3)
2006	24.0 (5.9)	21.0 (4.1)	23.0 (10.5)	22.0 (8.4)	90.0 (22.4)
2007	12.0 (0.0)	14.0 (3.5)	13.0 (1.9)	13.0 (4.1)	52.0 (7.5)
2008	13.3 (4.8)	6.7 (2.7)	20.0 (2.3)	16.0 (4.6)	56.0 (4.6)
2009	6.0 (2.6)	14.0 (1.2)	8.0 (1.6)	2.0 (1.2)	30.0 (3.5)
2011	2.7 (1.3)	8.0 (2.3)	5.3 (1.3)	9.3 (3.5)	25.3 (7.1)
2013	15.6 (5.6)	35.9 (6.3)	55.1 (11.4)	27.5 (4.9)	134.1 (14.7)
2015	12.0 (3.5)	10.0 (7.2)	18.0 (6.0)	22.0 (7.2)	61.9 (19.0)
2017	6.0 (3.5)	35.9 (6.0)	18.0 (6.0)	35.9 (15.1)	95.8 (21.6)
2019	16.0 (2.0)	27.9 (7.2)	22.0 (10.0)	33.9 (13.1)	99.8 (31.0)
2021	27.0 (11.1)	28.4 (14.5)	19.5 (13.7)	15.0 (9.3)	89.8 (45.8)
2023	8.0 (2.0)	8.0 (5.3)	18.0 (12.0)	18.0 (6.0)	51.9 (7.2)
2025	24.0 (9.5)	10.5 (1.5)	12.0 (6.5)	31.4 (8.6)	77.8 (7.7)
Mean	13.3 (1.5)	22.2 (2.0)	19.6 (2.3)	17.9 (2.0)	73.0 (5.5)

bbrpsjac.d01, cfdpsjac.d03-d11, uftg05jp.d13-d25

Table 14. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at Flemingsburg Old Reservoir on 19 May 2025.

	Inch class																				Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	error
Bluegill	22	59	71	33	27	2														214	640.7	18.0
Largemouth bass					1	1	1	2	3	11	6	7	4	3	2	6	3	2	4	56	167.7	12.0
Channel catfish															1					1	3.0	3.0
Redear sunfish		1	16	4	2	6														29	86.8	3.0
White crappie						5	3													8	24.0	24.0

uftg05fo.d25

Table 15. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2017-25) and redear sunfish (2019-25) collected at Flemingsburg Old Reservoir. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2017		329.3 (95.8)	32.9 (27.0)	27.0 (3.0)	389.2 (125.8)
2019	3.0 (3.0)	95.8 (35.9)	137.7 (24.0)	27.0 (9.0)	263.5 (47.9)
2021	3.0 (3.0)	68.9 (21.0)	27.0 (3.0)	6.0 (6.0)	104.8 (27.0)
2023		224.6 (38.9)	161.7 (24.0)		386.2 (62.9)
2025	65.9 (24.0)	488.0 (9.0)	86.8 (15.0)		640.7 (18.0)
Mean	14.4 (9.3)	241.3 (54.2)	89.2 (19.3)	12.0 (4.5)	356.9 (62.9)
Redear					
2019		29.9 (12.0)	27.0 (3.0)		56.9 (15.0)
2021			9.0 (3.0)	18.0 (18.0)	27.0 (21.0)
2023			71.9 (12.0)	98.8 (32.9)	170.7 (44.9)
2025		62.9 (9.0)	24.0 (6.0)		86.8 (3.0)
Mean		23.2 (10.2)	32.9 (9.3)	29.2 (17.0)	85.3 (22.5)

uftg05fo.d17-d25

Table 16. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Flemingsburg Old Reservoir from 2017-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2017	50.9 (38.9)	24.0 (0.0)	119.8 (29.9)	3.0 (3.0)	197.6 (71.9)
2019	32.9 (3.0)	164.7 (3.0)	27.0 (9.0)	12.0 (6.0)	236.5 (21.0)
2021		104.8 (44.9)	116.8 (21.0)		221.6 (65.9)
2023	6.0 (0.0)	59.9 (18.0)	21.0 (3.0)	50.9 (9.0)	137.7 (12.0)
2025	6.0 (0.0)	50.9 (32.9)	50.9 (21.0)	59.9 (0.0)	167.7 (12.0)
Mean	19.2 (8.7)	80.8 (18.6)	67.1 (15.7)	25.2 (8.6)	192.2 (19.2)

uftg05fo.d17-d25

Table 17. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Lake Pollywog on 16 May 2025. Standard errors were not calculated because only one sampling run could be completed.

	Inch class																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Bluegill	8	14	9	62	48														141	844.3
Largemouth bass	4	5	8	1		2	11	6	7	3	7		2	1			1	1	59	353.3
Redear sunfish			2			4	6	3											15	89.8
Green sunfish	1			1															2	12.0
White crappie							1												1	6.0

uftg05lp.d25

Table 18. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-25) and redear sunfish (2019-25) collected at Lake Pollywog. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	251.5	383.2	167.7		802.4
2011	449.1	1,574.9	215.6		2,239.5
2013	113.8	377.3	89.8		580.8
2015	29.9	634.7	323.4		988.0
2017	12.0	910.2	95.8		1,018.0
2019		47.9	215.6		263.5
2021	77.8	89.8	77.8		245.5
2023	65.9	550.9	311.4		928.1
2025		185.6	658.7		844.3
Mean	111.1 (49.8)	528.3 (159.7)	239.5 (60.5)		878.9 (195.8)
Redear					
2019		263.5	24.0		287.4
2021		24.0	101.8	155.7	281.4
2023		6.0	215.6	89.8	311.4
2025		12.0	77.8		89.8
Mean		76.4 (62.5)	85.3 (48.6)	80.8 (31.9)	242.5 (51.3)

uftg05lp.d10-d11, uftg04lp.d13, uftg05lp.d15-d25

Table 19. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Lake Pollywog from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2010	113.8	179.6	24.0	24.0	341.3
2011	179.6	263.5	83.8	6.0	532.9
2013	65.9	59.9	71.9	6.0	203.6
2015	35.9	29.9	24.0	24.0	113.8
2017	18.0	59.9	71.9	6.0	155.7
2019	83.8	107.8	6.0	6.0	203.6
2021	89.8	101.8	47.9		239.5
2023	59.9	35.9	173.7	35.9	305.4
2025	107.8	155.7	59.9	29.9	353.3
Mean	83.8 (15.9)	110.5 (25.7)	62.5 (16.4)	15.3 (4.4)	272.1 (42.4)

uftg05lp.d10-d11, uftg04lp.d13, uftg05lp.d15-d25

Table 20. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at Leary Lake on 16 May 2025.

	Inch class																			Std.
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	error
Bluegill		3	6	39	15														63	188.6	27.0
Largemouth bass	1	1		7	13	14	12	9	2	3	1				2	1		1	67	200.6	74.9
Channel catfish							1	4	5	6	2	1	1	2					22	65.9	12.0
Redear sunfish			1	1	4	1													7	21.0	9.0
White crappie								1											1	3.0	3.0

uftg05le.d25

Table 21. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2016-25) and redear sunfish (2019-25) collected at Leary Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2016	8.0 (8.0)	85.3 (7.1)	90.7 (27.8)	21.3 (7.1)	205.3 (34.7)
2017		92.8 (38.9)	113.8 (47.9)	77.8 (29.9)	284.4 (116.8)
2019	3.0 (3.0)	239.5 (12.0)	242.5 (110.8)	3.0 (3.0)	488.0 (128.7)
2021		182.6 (9.0)	257.5 (83.8)	9.0 (9.0)	449.1 (83.8)
2023		110.8 (3.0)	296.4 (15.0)	56.9 (3.0)	464.1 (15.0)
2025		9.0 (3.0)	134.7 (27.0)	44.9 (3.0)	188.6 (27.0)
Mean	2.3 (1.9)	117.3 (21.2)	181.7 (29.3)	34.4 (8.4)	335.7 (43.0)
Redear					
2019		68.9 (21.0)	21.0 (3.0)		89.8 (18.0)
2021		15.0 (9.0)		24.0 (0.0)	38.9 (9.0)
2023		32.9 (9.0)	12.0 (6.0)	24.0 (6.0)	68.9 (21.0)
2025			6.0 (6.0)	15.0 (3.0)	21.0 (9.0)
Mean		29.2 (10.8)	9.7 (3.4)	15.7 (3.9)	54.6 (11.6)

uftg04le.d16, uftg05le.d17-d25

Table 22. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Leary Lake from 2016-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2016	128.0 (21.2)	338.7 (46.7)	181.3 (47.4)	13.3 (2.7)	661.3 (93.5)
2017	35.9 (6.0)	242.5 (92.8)	35.9 (0.0)	9.0 (3.0)	323.4 (89.8)
2019	47.9 (12.0)	32.9 (3.0)	38.9 (3.0)	3.0 (3.0)	122.8 (9.0)
2021	6.0 (6.0)	74.9 (27.0)	71.9 (41.9)	6.0 (0.0)	158.7 (62.9)
2023	89.8 (12.0)	56.9 (21.0)	56.9 (3.0)	15.0 (9.0)	218.6 (21.0)
2025	27.0 (27.0)	143.7 (53.9)	18.0 (0.0)	12.0 (6.0)	200.6 (74.9)
Mean	61.3 (13.9)	162.9 (37.2)	75.9 (20.2)	10.0 (1.9)	310.2 (62.8)

uftg04le.d16, uftg05le.d17-d25

Table 23. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing runs at Kingdom Come State Park Lake on 15 May 2025. Standard errors were not calculated because only one sampling run could be completed.

	Inch class														
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	CPUE
Bluegill	2	4	5	1	1									13	77.8
Largemouth bass		1	1	4	20	3	2	15	2	3		1		52	311.4
Channel catfish									1	1		1	1	4	24.0
Redbreast sunfish	1	7	6	4		1								19	113.8
Green sunfish					1									1	6.0

uftg05kc.d25

Table 24. Electrofishing CPUE data (fish/hr) for each length group of bluegill collected at Kingdom Come State Park Lake from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
2010	3.0 (3.0)	12.0 (12.0)	9.0 (3.0)		24.0 (15.0)
2012	2.9 (2.9)	20.6 (2.9)	2.9 (2.9)	2.9 (2.9)	29.4 (5.9)
2014		15.0 (9.0)	12.0 (6.0)		27.0 (3.0)
2016		29.9	18.0		47.9
2018	6.0	119.8	6.0		131.7
2021		35.9 (18.0)	44.9 (21.0)		80.8 (38.9)
2023	9.0 (3.0)	35.9 (0.0)	56.9 (21.0)	3.0 (3.0)	104.8 (21.0)
2025		65.9	12.0		77.8
Mean	2.8 (1.1)	35.0 (8.6)	22.1 (6.7)	0.9 (0.6)	60.8 (11.7)

uftg04kc.d10, uftg05kc.d12-d25

Table 25. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Kingdom Come State Park Lake from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 – 11.9	12.0 – 14.9	≥ 15.0	Total
2010	15.0 (3.0)	158.7 (27.0)	9.0 (3.0)	3.0 (3.0)	185.6 (29.9)
2012	94.1 (29.4)	164.7 (0.0)	8.8 (2.9)	8.8 (2.9)	276.5 (23.5)
2014	38.9 (3.0)	125.8 (24.0)	24.0 (6.0)	12.0 (0.0)	200.6 (15.0)
2016	35.9	185.6		24.0	245.5
2018	113.8	245.5		6.0	365.3
2021	35.9 (6.0)	95.8 (41.9)	27.0 (3.0)	9.0 (3.0)	167.7 (35.9)
2023	80.8 (15.0)	197.6 (12.0)	68.9 (21.0)	12.0 (6.0)	359.3 (53.9)
2025	155.7	131.7	24.0		311.4
Mean	64.5 (12.5)	158.0 (13.6)	23.0 (6.7)	9.2 (1.9)	254.7 (22.8)

uftg04kc.d10, uftg05kc.d12-d25

Table 26. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Cherokee Park Lake on 12 May 2025. Standard errors were not calculated because only one sampling run could be completed.

	Inch class															
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	CPUE
Bluegill	2	2	8												12	71.9
Largemouth bass	1	4	1	1		4	4	1		1	1		1	1	20	119.8
Redear sunfish				2											2	12.0
Green sunfish		1													1	6.0
Warmouth				1											1	6.0
White crappie				10	16										26	155.7

uftg05cp.d25

Table 27. Electrofishing CPUE data (fish/hr) for each length group of bluegill and redear sunfish collected at Cherokee Park Lake from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	29.9	65.9	41.9		137.2
2011	77.8	12.0	18.0		107.8
2013		53.9	77.8		131.7
2015		113.8			113.8
2017		113.8	59.9		173.7
2019		65.9	47.9		113.8
2021	53.9	467.1	53.9		574.9
2023		167.7	101.8		269.5
2025		24.0	47.9		71.9
Mean	18.0 (9.8)	120.4 (46.2)	49.9 (10.0)		188.3 (51.8)
Redear					
2010				18.0	18.0
2011					0.0
2013			12.0	6.0	18.0
2015		29.9	6.0		35.9
2017			65.9		65.9
2019		41.9		18.0	59.9
2021		24.0		18.0	41.9
2023		149.7	6.0	18.0	173.7
2025			12.0		12.0
Mean		27.3 (16.2)	11.3 (7.0)	8.7 (3.0)	47.2 (17.4)

uftg05cp.d10-25

Table 28. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Cherokee Park Lake from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2010	29.9	29.9	143.7	12.0	215.6
2011	101.8	65.9	35.9	18.0	221.6
2013	24.0	95.8	41.9	71.9	233.5
2015	29.9	6.0	6.0		41.9
2017	95.8	53.9	12.0	35.9	197.6
2019	131.7	71.9	41.9		245.5
2021	125.8	24.0	185.6	18.0	353.3
2023	59.9	12.0		12.0	83.8
2025	41.9	53.9	12.0	12.0	119.8
Mean	71.2 (14.3)	45.9 (10.0)	53.2 (22.0)	20.0 (7.4)	190.3 (31.5)

uftg05cp.d10-d25

Table 29. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Fisherman's Park Lake #3 on 12 May 2025. Standard errors were not calculated because only one sampling run could be completed.

	Inch class																				
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Bluegill	15	7	8	1																31	185.6
Largemouth bass		1	3	1	10	1		1	1	1	2			1					1	23	137.7
Channel catfish												1								1	6.0
Redear sunfish	1	2	8	10	2	1	1													25	149.7
Longear sunfish		1																		1	6.0
Black crappie				3				1												4	24.0

uftg05fp.d25

Table 30. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-25) and redear sunfish (2019-25) collected at Fisherman's Park Lake #3. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	71.9	161.7	35.9		269.5
2011	83.8	203.6	35.9		323.4
2013	6.0	179.6	35.9		221.6
2015		119.8	29.9		149.7
2017	6.0	161.7	29.9		197.6
2019		89.8	24.0		113.8
2021	6.0	221.6	18.0		245.5
2023		137.7	65.9		203.6
2025		179.6	6.0		185.6
Mean	19.3 (11.2)	161.7 (13.7)	31.3 (5.5)		212.2 (20.9)
Redear					
2019		24.0	6.0	6.0	35.9
2021		29.9	18.0	12.0	59.9
2023		12.0	24.0	65.9	101.8
2025		65.9	71.9	12.0	149.7
Mean		32.9 (11.6)	29.9 (14.5)	24.0 (14.0)	86.8 (25.0)

uftg05fp.d10-d25

Table 31. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Fisherman's Park Lake #3 from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2010	18.0	107.8	101.8	41.9	269.5
2011	77.8	155.7	59.9	47.9	341.3
2013	24.0	131.7	35.9	53.9	245.5
2015	29.9	65.9	35.9	18.0	149.7
2017	77.8	35.9	24.0	29.9	167.7
2019	95.8	107.8	12.0	18.0	233.5
2021	6.0	137.7	29.9	24.0	197.6
2023		77.8	89.8	53.9	221.6
2025	89.8	18.0	18.0	12.0	137.7
Mean	46.6 (12.7)	93.2 (15.7)	45.2 (10.6)	33.3 (5.5)	218.2 (21.4)

uftg05fp.d10-d25

Table 32. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Fisherman's Park Lake #4 on 12 May 2025. Standard errors were not calculated because only one sampling run could be completed.

	Inch class																				
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Bluegill	1	9	14	47	36	2															109	652.7
Largemouth bass				1				3				1		2					1	1	9	53.9
Channel catfish																		1			1	6.0
Redear sunfish	1	5	4	8	6	7	4	1	1												37	221.6
Longear sunfish			1	3																	4	24.0
Black crappie			1																		1	6.0

uftg05fl.d25

Table 33. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-25) and redear sunfish (2019-25) collected at Fisherman's Park Lake #4. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	29.9	179.6	101.8		311.4
2011	65.9	251.5	65.9		383.2
2013		353.3	29.9		383.2
2015		215.6			215.6
2017	6.0	197.6	47.9		251.5
2019	6.0	101.8	59.9		167.7
2021	47.9	335.3	24.0		407.2
2023	6.0	149.7	71.9	6.0	233.5
2025	6.0	419.2	227.5		652.7
Mean	18.6 (8.0)	244.8 (34.8)	69.9 (22.1)	0.7 (0.7)	334.0 (48.7)
Redear					
2019		6.0	18.0		24.0
2021				12.0	12.0
2023			12.0	47.9	59.9
2025	6.0	101.8	77.8	35.9	221.6
Mean	1.5 (1.5)	27.0 (25.0)	27.0 (17.4)	24.0 (10.9)	79.3 (48.5)

uftg05fl.d10-d25

Table 34. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Fisherman's Park Lake #4 from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2010	6.0	35.9	83.8	6.0	131.7
2011	65.9	89.8	83.8	18.0	257.5
2013	59.9	113.8	29.9	6.0	209.6
2015	65.9	137.7	18.0	24.0	245.5
2017	53.9	131.7	65.9	24.0	275.5
2019	47.9	113.8	89.8	12.0	263.5
2021	24.0	71.9	71.9	18.0	185.6
2023	18.0	71.9	41.9	24.0	155.7
2025	6.0	18.0	6.0	24.0	53.9
Mean	38.6 (8.4)	87.2 (13.9)	54.6 (10.4)	17.3 (2.5)	197.6 (24.5)

uftg05fl.d10-d25

Table 35. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at Tom Wallace Park Lake on 30 May 2025.

	Inch class																				Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	error
Bluegill	5	7	1	1	1	5	1													21	62.9	15.0
Largemouth bass			2	20	22	3	4	13	16	9	3	1		1				1		95	284.4	27.0
Channel catfish								3	1	2	3	2	5	1		1	1		1	20	59.9	35.9
Redear sunfish	2	2	4	1			1													10	29.9	24.0
Warmouth				1		1														2	6.0	6.0

uftg05tw.d25

Table 36. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2005-25) and redear sunfish (2021-25) collected at Tom Wallace Park Lake. Redear sunfish were stocked in 2019. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2005	73.8 (36.3)	186.3 (23.8)			260.0 (60.0)
2006	39.2 (19.9)	63.3 (21.7)	27.1 (7.6)		129.5 (41.8)
2007	4.0 (4.0)	32.1 (4.0)	16.1 (16.1)		52.2 (22.4)
2010	35.9	6.0	41.9		83.8
2011		116.8 (27.0)	18.0 (12.0)	6.0 (6.0)	140.7 (32.9)
2013		74.9 (3.0)	21.0 (15.0)	12.0 (6.0)	107.8 (18.0)
2015		68.9 (27.0)	12.0 (6.0)		80.8 (32.9)
2017		9.0 (9.0)	18.0 (0.0)	38.9 (3.0)	65.9 (6.0)
2019		53.9 (6.0)	71.9 (18.0)	29.9 (24.0)	155.7 (47.9)
2021		56.9 (21.0)	18.0 (6.0)	12.0 (12.0)	86.8 (3.0)
2023		89.8 (29.9)	56.9 (9.0)	3.0 (3.0)	149.7 (41.9)
2025	15.0 (15.0)	27.0 (15.0)	18.0 (12.0)	3.0 (3.0)	62.9 (15.0)
Mean	14.7 (5.7)	66.2 (10.1)	25.6 (4.5)	8.1 (2.9)	114.6 (13.7)
Redear					
2021			9.0 (3.0)	32.9 (27.0)	41.9 (29.9)
2023				9.0 (9.0)	9.0 (9.0)
2025	6.0 (6.0)	21.0 (15.0)		3.0 (3.0)	29.9 (24.0)
Mean	2.0 (2.0)	7.0 (5.9)	3.0 (2.1)	15.0 (9.4)	27.0 (11.9)

ufrpstom.d05, ufr05tom.d06-d07, uftg05tw.d10-d25

Table 37. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Tom Wallace Park Lake from 2005-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2005	153.8 (16.3)	116.3 (3.8)	18.8 (18.8)		288.8 (1.3)
2006	60.2 (19.1)	105.4 (18.7)	18.1 (11.5)	6.0 (3.5)	189.8 (44.6)
2007	68.3 (38.3)	164.7 (32.9)	32.1 (14.5)	8.0 (8.0)	273.1 (47.4)
2010	71.9	119.8	24.0	35.9	251.5
2011	80.8 (9.0)	95.8 (12.0)	12.0 (6.0)	6.0 (6.0)	194.6 (32.9)
2013	146.7 (27.0)	113.8 (12.0)	18.0 (12.0)	6.0 (6.0)	284.4 (3.0)
2015	92.8 (9.0)	98.8 (32.9)	21.0 (3.0)	12.0 (6.0)	224.6 (27.0)
2017	71.9 (18.0)	197.6 (29.9)	9.0 (3.0)	3.0 (3.0)	281.4 (12.0)
2019	92.8 (15.0)	98.8 (3.0)	3.0 (3.0)	18.0 (0.0)	212.6 (15.0)
2021	80.8 (15.0)	74.9 (38.9)	15.0 (9.0)	15.0 (9.0)	185.6 (71.9)
2023	98.8 (15.0)	122.8 (32.9)	18.0 (18.0)	18.0 (6.0)	257.5 (71.9)
2025	140.7 (38.9)	125.8 (18.0)	12.0 (6.0)	6.0 (0.0)	284.4 (27.0)
Mean	93.7 (8.4)	120.2 (8.5)	17.1 (3.1)	9.7 (1.9)	240.7 (12.8)

ufrpstom.d05, ufr05tom.d06-d07, uftg05tw.d10-d25

Table 38. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at Waverly Park Lake on 20 May 2025.

	Inch class																			Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	error
Bluegill	2	4	1	10	12													29	86.8	3.0
Largemouth bass			5	8	2	41	37	21	6	2	2	3			1		1	129	386.2	98.8
Channel catfish												1	1			1		3	9.0	3.0
Green sunfish		3	1															4	12.0	6.0
Redear sunfish		1	2	15	23	14	1											56	167.7	71.9
Longear sunfish		3	11	8														22	65.9	35.9

uftg05wp.d25

Table 39. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-25) and redear sunfish (2015-25) collected at Waverly Park Lake. Redear sunfish were first stocked in 2013 and again in 2019. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	6.0	191.6	29.9		227.5
2011	509.0	191.6	6.0		706.6
2013	3.0 (3.0)	239.5 (41.9)	35.9 (12.0)		278.4 (56.9)
2015	29.9	179.6	12.0		221.6
2017	6.0	107.8	35.9		149.7
2019	18.0	125.8	18.0	6.0	167.7
2021	74.9 (62.9)	521.0 (203.6)	15.0 (3.0)		610.8 (269.5)
2023	18.0 (0.0)	29.9 (6.0)	47.9 (6.0)		95.8 (12.0)
2025	6.0 (6.0)	44.9 (3.0)	35.9 (6.0)		86.8 (3.0)
Mean	59.4 (38.8)	189.8 (51.6)	28.6 (4.2)	0.5 (0.5)	278.2 (68.5)
Redear					
2015		6.0		12.0	18.0
2017		12.0	12.0	6.0	29.9
2019	6.0	6.0	6.0	18.0	35.9
2021		6.0 (6.0)	62.9 (9.0)	12.0 (0.0)	80.8 (15.0)
2023	32.9 (32.9)	9.0 (9.0)		3.0 (3.0)	44.9 (44.9)
2025		53.9 (6.0)	110.8 (62.9)	3.0 (3.0)	167.7 (71.9)
Mean	8.0 (7.3)	18.0 (7.1)	40.6 (19.0)	8.0 (2.0)	74.5 (23.8)

uftg05wp.d10-d25

Table 40. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Waverly Park Lake from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2010	59.9			6.0	65.9
2011	125.8	65.9	12.0		203.6
2013	113.8 (18.0)	89.8 (12.0)	27.0 (15.0)	12.0 (6.0)	242.5 (50.9)
2015	167.7	107.8	18.0	6.0	299.4
2017	89.8	161.7	29.9		281.4
2019	35.9	47.9	83.8	6.0	173.7
2021	41.9 (18.0)	29.9 (0.0)	29.9 (18.0)	24.0 (0.0)	125.8 (35.9)
2023	892.2 (113.8)	3.0 (3.0)	18.0 (0.0)	9.0 (3.0)	922.2 (113.8)
2025	167.7 (18.0)	197.6 (77.8)	15.0 (3.0)	6.0 (0.0)	386.2 (98.8)
Mean	223.9 (84.4)	78.8 (21.5)	24.9 (6.1)	9.2 (2.2)	336.7 (79.0)

uftg05wp.d10-d25

Table 41. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at William F. Miles Angler Lake on 30 May 2025.

	Inch class																					Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	error
Bluegill	1		4	3	6															14	41.9	12.0
Largemouth bass			5	7	2		2	9	6			1		3	1	1	1		1	39	116.8	15.0
Channel catfish												1								1	3.0	3.0
Green sunfish		2																		2	6.0	0.0
Redear sunfish					4	4														8	24.0	6.0

uftg05mp.d25

Table 42. Electrofishing CPUE data (fish/hr) for each length group of bluegill and redear sunfish collected at William F. Miles Angler Lake from 2005-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2005	4.0 (4.0)	57.7 (31.4)	52.9 (26.5)		114.6 (59.0)
2006	18.1 (6.0)	36.1 (12.1)	42.2 (30.1)		96.4 (48.2)
2007	21.1 (7.6)	105.4 (37.9)	33.1 (16.6)		159.6 (60.1)
2010	27.0 (3.0)	122.8 (9.0)	32.9 (27.0)		182.6 (38.9)
2011	28.9 (21.0)	182.6 (98.8)	21.0 (3.0)		242.5 (122.8)
2013	3.0 (3.0)	128.7 (44.9)	62.9 (32.9)		194.6 (9.0)
2015	3.0 (3.0)	80.8 (3.0)	18.0 (6.0)		101.8 (6.0)
2017	9.0 (3.0)	242.5 (74.9)	21.0 (3.0)		272.5 (80.8)
2019	6.0 (0.0)	140.7 (21.0)	15.0 (3.0)		161.7 (18.0)
2021		137.7 (18.0)	12.0 (6.0)		149.7 (12.0)
2023	6.0 (6.0)	50.9 (3.0)	6.0 (0.0)	3.0 (3.0)	65.9 (0.0)
2025	3.0 (3.0)	21.0 (3.0)	18.0 (12.0)		41.9 (12.0)
Mean	12.0 (2.8)	106.8 (14.8)	29.2 (5.4)	0.2 (0.2)	148.2 (17.8)
Redear					
2005		2.8 (1.4)	34.5 (15.7)	4.2 (2.5)	41.5 (18.9)
2006		18.1 (18.1)	18.1 (18.1)		36.1 (36.1)
2007		39.2 (23.8)	9.0 (3.0)	3.0 (3.0)	51.2 (27.6)
2010		18.0 (0.0)	125.8 (24.0)	9.0 (3.0)	152.7 (21.0)
2011		107.8 (59.9)	65.9 (29.9)		173.7 (89.8)
2013		27.0 (15.0)	98.8 (32.9)	6.0 (6.0)	131.7 (53.9)
2015		32.9 (15.0)	62.9 (3.0)	6.0 (6.0)	101.8 (12.0)
2017	3.0 (3.0)	83.8 (12.0)	122.8 (56.9)	9.0 (3.0)	218.6 (44.9)
2019		41.9 (6.0)	107.8 (53.9)	6.0 (6.0)	155.7 (53.9)
2021		38.9 (15.0)	68.9 (32.9)	3.0 (3.0)	110.8 (50.9)
2023		6.0 (0.0)	6.0 (6.0)	9.0 (3.0)	21.0 (9.0)
2025			24.0 (6.0)		24.0 (6.0)
Mean	0.2 (0.2)	33.8 (7.6)	57.1 (10.0)	4.5 (1.0)	95.6 (14.9)

ufrpsmi4.d05, ufr05mi4.d06-d07, uftg05mp.d10-d25

Table 43. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at William F. Miles Angler Lake from 2005-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2005	30.3 (16.3)	62.8 (38.2)			93.1 (54.3)
2006	12.1 (0.0)	90.4 (54.2)	6.0 (6.0)	6.0 (6.0)	114.5 (42.2)
2007	27.1 (5.8)	42.2 (22.8)	18.1 (3.5)	3.0 (3.0)	90.4 (26.7)
2010	27.0 (3.0)	89.8 (0.0)	21.0 (3.0)	18.0 (6.0)	155.7 (12.0)
2011	80.8 (56.9)	128.7 (21.0)	56.9 (9.0)	12.0 (12.0)	278.4 (15.0)
2013	12.0 (6.0)	101.8 (6.0)	18.0 (0.0)	12.0 (0.0)	143.7 (0.0)
2015	21.0 (15.0)	98.8 (15.0)	35.9 (6.0)	18.0 (12.0)	173.7 (12.0)
2017	35.9 (12.0)	47.9 (29.9)	18.0 (0.0)	18.0 (0.0)	119.8 (41.9)
2019	59.9 (12.0)	44.9 (3.0)	29.9 (12.0)	38.9 (27.0)	173.7 (6.0)
2021	9.0 (9.0)	59.9 (29.9)	18.0 (18.0)	32.9 (9.0)	119.8 (65.9)
2023	164.7 (9.0)	15.0 (3.0)	38.9 (3.0)	12.0 (0.0)	230.5 (3.0)
2025	41.9 (24.0)	50.9 (9.0)	3.0 (3.0)	21.0 (3.0)	116.8 (15.0)
Mean	41.8 (8.7)	67.2 (8.5)	20.9 (3.3)	14.4 (2.9)	144.2 (13.3)

ufrpsmi4.d05, ufr05mi4.d06-d07, uftg05mp.d10-d25

Table 44. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Middleton Mills Long Pond on 16 May 2025. Standard errors were not calculated because only one sampling run could be completed.

	Inch class														
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	CPUE
Bluegill	1		19	11	40	7								78	467.1
Largemouth bass				1	7	1	3	14	7	3	6	1	1	44	263.5
Channel catfish									1					1	6.0
Redear sunfish			3	3	5	8	1		1					21	125.8
Green sunfish	2			1										3	18.0
White crappie							1							1	6.0

uftg05ml.d25

Table 45. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-25) and redear sunfish (2020-25) collected at Middleton Mills Long Pond. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	32.4	988.0	24.0		1,335.3
2012	558.8	182.4			741.2
2014	12.0	251.5	29.9		293.4
2016	155.7	359.3	29.9		544.9
2018	47.9	1,065.9	24.0		1,137.7
2020	71.9	263.5	83.8		419.2
2021	12.0	167.7	137.7		317.4
2023	6.0	257.5	29.9		293.4
2025	6.0	179.6	281.4		467.1
Mean	133.7 (64.5)	413.2 (117.8)	71.2 (29.7)		618.1 (127.6)
Redear					
2020		53.9	119.8	6.0	179.6
2021			65.9	89.8	155.7
2023	6.0	47.9		47.9	101.8
2025		35.9	77.8	12.0	125.8
Mean	1.5 (1.5)	34.4 (12.1)	65.9 (24.8)	38.9 (19.3)	140.7 (17.0)

uftg05ml.d10-d25

Table 46. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Middleton Mills Long Pond from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2010	24.0	185.6	47.9		257.5
2012	123.5	58.8	23.5	29.4	235.3
2014	209.6		29.9	6.0	245.5
2016	12.0	59.9	65.9	6.0	143.7
2018		6.0	12.0	35.9	53.9
2020	77.8	83.8	6.0	6.0	173.7
2021	29.9	179.6		12.0	221.6
2023	149.7	161.7	24.0	12.0	347.3
2025	53.9	161.7	47.9		263.5
Mean	75.9 (23.9)	99.8 (24.6)	28.6 (7.3)	12.0 (4.2)	216.2 (27.9)

uftg05ml.d10-d25

Table 47. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Middleton Mills Shelterhouse Pond on 16 May 2025. Standard errors were not calculated because only one sampling run could be completed.

	Inch class																					
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Bluegill	20	95	6	8	5	2															136	814.4
Largemouth bass	1	6						1		1	4	4	4	4	1	1					27	161.7
Channel catfish										1			1	1	1		1			2	7	41.9
Redear sunfish	2	6	22	16	9	1															56	335.3
Green sunfish					1																1	6.0
White crappie					4	2															6	35.9

uftg05ms.d25

Table 48. Electrofishing CPUE data (fish/hr) for each length group of bluegill and redear sunfish collected at Middleton Mills Shelterhouse Pond from 2005-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2005	200.0	586.7	13.3		800.0
2006	18.1	168.7	6.0		192.8
2007	12.1	126.5	6.0		144.6
2010	6.0	107.8			113.8
2012	152.9	194.1			347.1
2014		113.8			113.8
2016	71.9	29.9			101.8
2018	41.9	71.9	6.0		119.8
2021	167.7	377.3	18.0		562.9
2023	59.9	263.5	12.0		335.3
2025	119.8	652.7	41.9		814.4
Mean	67.9 (19.3)	230.1 (53.9)	8.9 (3.3)		306.9 (71.6)
Redear					
2007		114.5	24.1		138.6
2010		1,149.7	18.0		1,167.7
2012	23.5	664.7	52.9		741.2
2014		329.3	12.0		341.3
2016	83.8	221.6	29.9		335.3
2018	6.0	155.7	29.9		191.6
2021	6.0	215.6	29.9		251.5
2023		473.1	95.8		568.9
2025	12.0	263.5	59.9		335.3
Mean	10.1 (6.5)	285.7 (90.4)	29.0 (7.7)		324.9 (93.9)

ufrpsmmp.d05, ufr05mmp.d06, ufr05mmp.d07, uftg05ms.d10-d25

Table 49. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Middleton Mills Shelterhouse Pond from 2005-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2005		6.7	20.0		26.7
2006	30.1	66.3	24.1	36.1	156.6
2007	18.1	60.0	60.0		138.6
2010	83.8	18.0	6.0	24.0	131.7
2012			11.8	5.9	17.8
2014	6.0				6.0
2016			6.0		6.0
2018		6.0		12.0	18.0
2021		6.0	35.9	24.0	65.9
2023	29.9	41.9	29.9	24.0	125.8
2025	41.9	12.0	71.9	35.9	161.7
Mean	19.9 (6.8)	26.4 (7.8)	27.0 (6.8)	15.2 (4.4)	88.5 (18.2)

ufrpsmmp.d05, ufr05mmp.d06, ufr05mmp.d07, uftg05ms.d10-d25

Table 50. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Prisoners Lake on 16 May 2025. Standard errors were not calculated because only one sampling run could be completed.

	Inch class																				
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Bluegill	1	4	5	8	8																26	155.7
Largemouth bass			1		1	1			2	2	5	4	2	2	1						21	125.8
Channel catfish												4		1	2						7	41.9
Redear sunfish		1	1		3	2	1														8	47.9
Black crappie					1																1	6.0
Hybrid striped bass																				1	1	6.0

uftg05pl.d25

Table 51. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-25) and redear sunfish (2021-25) collected at Prisoners Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	18.0	185.6	29.9	6.0	239.5
2012	6.0	604.8	18.0		628.4
2014		59.9	24.0		83.8
2016	12.0	227.5	12.0		251.5
2017	6.0	113.8	41.9		161.7
2019		29.9	41.9		71.9
2021	6.0	24.0			29.9
2023	6.0	377.3			383.2
2025	6.0	101.8	47.9		155.7
Mean	6.7 (1.9)	191.6 (63.7)	24.0 (6.0)	0.7 (0.7)	222.9 (62.3)
Redear					
2021		35.9	24.0		59.9
2023			12.0		12.0
2025		12.0	29.9	6.0	47.9
Mean		16.0 (10.6)	22.0 (5.3)	2.0 (2.0)	39.9 (14.4)

uftg05pl.d10, uftg04pl.d12, uftg05pl.d14-d25

Table 52. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Prisoners Lake from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2010	12.0	71.9	77.8	53.9	215.6
2012		35.9	6.0	41.9	83.8
2014	6.0	35.9	41.9	24.0	107.8
2016	24.0		18.0	18.0	59.9
2017	35.9	41.9	12.0	18.0	107.8
2019	18.0	59.9	24.0	35.9	137.7
2021	24.0	24.0	29.9	18.0	95.8
2023	35.9	35.9	18.0	12.0	101.8
2025	18.0	24.0	65.9	18.0	125.8
Mean	19.3 (4.1)	36.6 (7.0)	32.6 (8.2)	26.6 (4.7)	115.1 (14.6)

uftg05pl.d10, uftg04pl.d12, uftg05pl.d14-d25

Table 53. Length frequency and CPUE (fish/hr) of fish collected in three, 10-min electrofishing runs at Brickyard Pond on 15 May 2025.

	Inch class																				Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	error
Bluegill	34	52	65	19	4															174	347.3	59.9
Largemouth bass		1	1	4	7	2	3	3		3	3	2	3	2		2				36	71.9	21.6
Channel catfish										1		3							1	5	10.0	2.0
Redear sunfish		2	2	1		2	1	3	1											12	24.0	3.5
Green sunfish		1																		1	2.0	2.0
Warmouth		1																		1	2.0	2.0
Black crappie			1		1	1		1												4	8.0	8.0
Brown bullhead											1		1							2	4.0	4.0

uftg05bp.d25

Table 54. Electrofishing CPUE data (fish/hr) for each length group of bluegill and redear sunfish collected at Brickyard Pond from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	93.8 (2.0)	491.0 (126.2)	16.0 (7.2)		600.8 (121.4)
2012	24.0 (6.0)	131.1 (55.6)	22.0 (8.7)		477.1 (58.9)
2014	33.9 (7.2)	271.5 (40.4)	24.0 (18.0)		329.3 (35.1)
2016	22.0 (12.1)	457.1 (67.9)	37.9 (13.1)		517.0 (76.9)
2017	8.0 (2.0)	291.4 (49.7)	63.9 (22.2)		363.3 (73.0)
2019	47.9 (15.9)	247.5 (71.7)	16.0 (13.1)		311.4 (98.9)
2021	6.0 (3.5)	335.3 (73.2)	20.0 (10.6)		361.3 (83.4)
2023	22.0 (2.0)	499.0 (28.2)	29.9 (9.2)		550.9 (36.1)
2025	67.9 (16.3)	271.5 (43.8)	8.0 (5.3)		347.3 (59.9)
Mean	36.2 (6.0)	366.2 (26.7)	26.4 (4.7)		428.7 (29.1)
Redear					
2010		10.0 (5.3)	4.0 (2.0)	12.0 (6.9)	26.0 (8.0)
2012	4.0 (4.0)	173.7 (36.4)	55.9 (8.7)		233.5 (31.1)
2014	2.0 (2.0)	117.8 (38.1)	157.7 (61.9)		277.5 (91.8)
2016		31.9 (2.0)	159.7 (34.8)	2.0 (2.0)	193.6 (38.1)
2017			79.8 (27.7)	8.0 (5.3)	87.8 (32.9)
2019		4.0 (2.0)	6.0 (3.5)	35.9 (12.5)	45.9 (12.1)
2021		2.0 (2.0)	27.9 (5.3)	20.0 (2.0)	49.9 (7.2)
2023			4.0 (4.0)	29.9 (6.9)	33.9 (10.6)
2025		10.0 (2.0)	4.0 (4.0)	10.0 (2.0)	24.0 (3.5)
Mean	0.7 (0.5)	38.8 (12.6)	55.4 (13.9)	13.1 (2.9)	108.0 (21.0)

uftg04bp.d10, uftg05bp.d12-d25

Table 55. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Brickyard Pond from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2010	81.8 (23.0)	87.8 (16.3)	49.9 (12.1)	12.0 (6.0)	231.5 (38.1)
2012	59.9 (6.0)	183.6 (31.0)	39.9 (10.6)	18.0 (3.5)	301.4 (46.9)
2014	26.0 (7.2)	155.7 (12.5)	39.9 (13.1)	6.0 (3.5)	227.5 (33.0)
2016	18.0 (9.2)	93.8 (20.3)	57.9 (11.1)	26.0 (7.2)	195.6 (37.0)
2017	8.0 (2.0)	65.9 (9.2)	35.9 (13.8)	14.0 (8.0)	123.8 (12.1)
2019	10.0 (5.3)	43.9 (16.3)	27.9 (8.7)	10.0 (2.0)	91.8 (22.2)
2021	12.0 (6.0)	31.9 (10.0)	37.9 (5.3)	27.9 (2.0)	109.8 (16.0)
2023	41.9 (3.5)	31.9 (10.6)	14.0 (4.0)	14.0 (2.0)	101.8 (15.8)
2025	29.9 (9.2)	18.0 (12.0)	16.0 (5.3)	8.0 (2.0)	71.9 (21.6)
Mean	31.9 (5.4)	79.2 (11.6)	35.5 (3.8)	15.1 (1.9)	161.7 (16.8)

uftg04bp.d10, uftg05bp.d12-d25

Table 56. Length frequency and CPUE (fish/hr) of fish collected in four, 10-min electrofishing runs at Logan Hubble Park Lake on 8 May 2025.

	Inch class																		Std.
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	error
Bluegill	3	14	53	33													103	154.2	37.6
Largemouth bass			13	12	9	5		7	27	4	2	5		3	2		89	133.2	6.6
Channel catfish								5	1	1	1	4		1		3	16	24.0	8.1
Redear sunfish		1	17	52	15												85	127.3	30.1
White crappie				4	27	2											33	49.4	15.3

uftg05lh.d25

Table 57. Electrofishing CPUE data (fish/hr) for each length group of bluegill and redear sunfish collected at Logan Hubble Park Lake from 2016-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2016	6.0 (3.5)	121.8 (8.7)	24.0 (9.2)		151.7 (17.1)
2017	24.0 (12.5)	169.7 (56.3)	119.8 (51.2)	75.9 (8.7)	389.2 (56.9)
2019	8.0 (8.0)	77.8 (45.7)	41.9 (13.8)	14.0 (4.0)	141.7 (66.9)
2021		41.9 (10.1)	64.4 (9.9)	6.0 (3.5)	112.3 (15.0)
2023	8.0 (2.0)	191.6 (26.1)	22.0 (7.2)		221.6 (34.6)
2025		104.8 (29.8)	49.4 (26.5)		154.2 (37.6)
Mean	6.9 (2.7)	113.5 (16.3)	54.9 (11.1)	14.7 (6.2)	188.9 (25.0)
Redear					
2016		2.0 (2.0)	8.0 (4.0)	16.0 (4.0)	26.0 (8.7)
2017		2.0 (2.0)	2.0 (2.0)	18.0 (10.4)	22.0 (8.7)
2019		4.0 (2.0)	16.0 (4.0)	4.0 (2.0)	24.0 (6.9)
2021			7.5 (2.9)	40.4 (11.3)	47.9 (12.9)
2023		57.9 (8.0)	34.0 (9.2)		81.8 (7.2)
2025		27.0 (9.3)	100.3 (21.2)		127.3 (30.1)
Mean		15.3 (5.1)	29.0 (9.3)	13.8 (4.2)	58.1 (11.0)

uftg06lh.d16, uftg05lh.d17-d25

Table 58. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Logan Hubble Park Lake from 2016-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2016	18.0 (6.0)	37.9 (4.0)	67.9 (16.3)	18.0 (3.5)	141.7 (23.0)
2017	31.9 (4.0)	37.9 (4.0)	81.8 (14.4)	26.0 (10.6)	177.6 (22.2)
2019	47.9 (15.1)	73.9 (16.0)	145.7 (22.2)	24.0 (18.0)	291.4 (17.4)
2021	55.4 (14.1)	76.4 (17.4)	88.3 (4.5)	24.0 (7.3)	244.0 (24.5)
2023	89.8 (39.0)	2.0 (2.0)			91.8 (41.0)
2025	50.9 (14.4)	58.4 (7.1)	16.5 (6.6)	7.5 (5.7)	133.2 (6.6)
Mean	49.4 (8.0)	49.7 (7.0)	65.3 (11.6)	16.5 (3.8)	180.8 (17.5)

uftg06lh.d16, uftg05lh.d17-d25

Table 59. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at Whitehall Park Lake on 14 May 2025.

	Inch class																			Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	error
Bluegill	2	17	45	18	9	1													92	275.5	173.7
Largemouth bass		1	10	14	14	6	3	25	13	9	15	5	1	1	2	1		1	121	362.3	44.9
Redear sunfish	1	1	39	90	60	7		1	2										201	601.8	15.0
Green sunfish				4	2														6	18.0	6.0

uftg05wh.d25

Table 60. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2011-25) and redear sunfish (2019-25) collected at Whitehall Park Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2011	371.3	167.7	95.8		634.7
2012	320.6 (202.9)	247.1 (5.9)	47.1 (41.2)	2.9 (2.9)	617.4 (152.9)
2014	3.0 (3.0)	77.8 (12.0)			80.8 (9.0)
2015		77.8			77.8
2017		341.3 (191.6)	74.9 (56.9)		416.2 (248.5)
2019	6.0 (6.0)	12.0 (12.0)	21.0 (15.0)	6.0 (6.0)	44.9 (27.0)
2021	9.0 (3.0)	21.0 (3.0)	3.0 (3.0)		32.9 (3.0)
2023	47.9 (12.0)	233.5 (35.9)			281.4 (47.9)
2025	6.0 (6.0)	239.5 (155.7)	29.9 (12.0)		275.5 (173.7)
Mean	73.0 (38.5)	162.4 (37.3)	28.1 (10.4)	1.1 (0.8)	264.6 (64.4)
Redear					
2019	3.0 (3.0)	21.0 (9.0)	35.9 (35.9)		59.9 (41.9)
2021		143.7 (24.0)	113.8 (53.9)	32.9 (21.0)	290.4 (50.9)
2023	9.0 (3.0)	236.5 (38.9)	27.0 (9.0)	29.9 (12.0)	302.4 (62.9)
2025	3.0 (3.0)	389.2 (24.0)	200.6 (15.0)	9.0 (9.0)	601.8 (15.0)
Mean	3.7 (1.6)	197.6 (51.8)	94.3 (29.4)	18.0 (7.2)	313.6 (74.8)

uftg05wh.d11-d12, uftg04wh.d14, uftg05wh.d15-d25

Table 61. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Whitehall Park Lake from 2011-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0 in	8.0 - 11.9 in	12.0 - 14.9 in	≥ 15.0 in	Total
2011	227.5	77.8	137.7	6.0	449.1
2012	214.7 (55.9)	185.3 (26.5)	26.5 (2.9)	14.7 (2.9)	441.2 (23.5)
2014	128.7 (21.0)	227.5 (59.9)	167.7 (24.0)	9.0 (3.0)	532.9 (101.8)
2015	173.7	47.9	89.8	18.0	329.3
2017	275.5 (59.9)	6.0 (0.0)	9.0 (3.0)	3.0 (3.0)	293.4 (59.9)
2019	434.1 (128.7)	110.8 (32.9)	9.0 (3.0)	3.0 (3.0)	556.9 (155.7)
2021	254.5 (21.0)	365.3 (6.0)	21.0 (21.0)	3.0 (3.0)	643.7 (44.9)
2023	254.5 (44.9)	125.8 (18.0)	21.0 (3.0)		401.2 (24.0)
2025	134.7 (3.0)	149.7 (24.0)	62.9 (15.0)	15.0 (9.0)	362.3 (44.9)
Mean	237.7 (27.7)	154.6 (27.5)	53.9 (14.5)	7.5 (1.9)	453.6 (34.3)

uftg05wh.d11-d12, uftg04wh.d14, uftg05wh.d15-25

Table 62. Length frequency and CPUE (fish/hr) of fish collected in three, 10-min electrofishing runs at Maysville-Mason County Recreation Park Lake on 16 May 2025.

	Inch class																						Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	error
Bluegill	77	67	67	47	85	10																353	704.6	108.5
Largemouth bass	1	3	3	1	3	1	8	6	5	5	9	16	20	14	5	6	1	1	1		2	111	221.6	48.0
Channel catfish											1											1	2.0	2.0
Green sunfish	5	4		1																		10	20.0	12.1
Redear sunfish				4	5	3	3															15	29.9	27.0
Longear sunfish				3																		3	6.0	3.5
White crappie						2	4															6	12.0	6.0
Black crappie						6	8															14	27.9	15.6

uftg05ma.d25

Table 63. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2014-25) and redear sunfish (2019-25) collected at Maysville-Mason County Recreation Park Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2014	67.9 (33.2)	682.6 (129.7)	135.7 (29.0)		886.2 (181.2)
2015	16.0 (5.3)	437.1 (88.2)	47.9 (21.6)		501.0 (100.9)
2016	24.0 (6.0)	928.1 (251.5)	9.0 (9.0)		961.1 (266.5)
2017	9.0 (3.0)	158.7 (50.9)	32.9 (15.0)		200.6 (38.9)
2019	47.9 (24.0)	547.9 (302.4)	56.9 (44.9)	6.0 (6.0)	652.7 (323.4)
2021	16.0 (2.0)	423.2 (41.3)	75.9 (17.1)		515.0 (55.3)
2023	8.0 (2.0)	375.3 (37.0)	161.7 (81.7)		544.9 (78.3)
2025	153.7 (94.4)	361.3 (106.8)	189.6 (101.3)		704.6 (108.5)
Mean	45.1 (16.3)	481.3 (57.3)	96.7 (21.5)		623.0 (62.7)
Redear					
2019		44.9 (15.0)	6.0 (0.0)		50.9 (15.0)
2021		2.0 (2.0)	14.0 (8.7)	2.0 (2.0)	18.0 (9.2)
2023			8.0 (5.3)		8.0 (5.3)
2025		8.0 (8.0)	16.0 (13.1)	6.0 (6.0)	29.9 (27.0)
Mean		10.9 (5.9)	11.4 (4.1)	2.2 (1.7)	24.5 (8.5)

uftg05ma.d14-d15, uftg04ma.d16, uftg05ma.d17-d25

Table 64. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Maysville-Mason County Recreation Park Lake from 2014-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2014	14.0 (2.0)	55.9 (10.6)	14.0 (5.3)	22.0 (16.3)	105.8 (21.1)
2015	12.0 (0.0)	37.9 (10.6)	27.9 (10.6)	16.0 (13.1)	93.8 (33.2)
2016	12.0 (0.0)	18.0 (6.0)	47.9 (6.0)	18.0 (6.0)	95.8 (18.0)
2017	6.0 (0.0)	12.0 (6.0)	15.0 (3.0)	27.0 (21.0)	59.9 (24.0)
2019	15.0 (3.0)	83.8 (18.0)	62.9 (9.0)	32.9 (3.0)	194.6 (15.0)
2021	41.9 (15.8)	10.0 (5.3)	53.9 (10.4)	37.9 (4.0)	143.7 (21.6)
2023	14.0 (2.0)	27.9 (2.0)	43.9 (7.2)	45.9 (14.0)	131.7 (19.3)
2025	24.0 (3.5)	47.9 (15.1)	89.8 (21.6)	59.9 (9.2)	221.6 (48.0)
Mean	18.3 (3.1)	36.5 (5.8)	44.8 (6.4)	33.4 (4.9)	132.9 (14.0)

uftg05ma.d14-d15, uftg04ma.d16, uftg05ma.d17-d25

Table 65. Length frequency and CPUE (fish/hr) of fish collected in three, 10-min electrofishing runs at Carlson Lake (Ft. Knox) on 12 May 2025.

	Inch class																			Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	error
Bluegill	11	12	5	3	19	17	1											68	135.7	51.3
Largemouth bass		1	2	3	3		8	14	10	16	27	7	2					93	185.6	19.3
Channel catfish																	1	1	2.0	2.0
Longear sunfish				1	1													2	4.0	2.0
Green sunfish	1					1												2	4.0	2.0
Redear sunfish	2	2	7	16	25	25	8	1										86	171.7	34.8
White crappie			1	6	6	5	1	1		1								21	41.9	35.9

uftg05cl.d25

Table 66. Electrofishing CPUE data (fish/hr) for each length group of bluegill and redear sunfish collected at Carlson Lake (Ft. Knox) from 2011-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2011	201.6 (125.2)	203.6 (120.2)	119.8 (85.0)	6.0 (6.0)	530.9 (180.4)
2013	4.0 (2.0)	10.0 (5.3)	8.0 (2.0)		22.0 (8.0)
2015	111.8 (85.0)	105.8 (70.2)	43.9 (20.8)		261.5 (137.3)
2017	67.9 (22.2)	323.4 (15.8)	51.9 (5.3)		443.1 (33.0)
2019	127.7 (62.4)	403.2 (102.6)	20.0 (17.1)		550.9 (152.9)
2021	61.9 (23.0)	149.7 (53.2)	16.0 (2.0)	2.0 (2.0)	229.5 (75.1)
2023	169.7 (79.5)	203.6 (60.6)	20.0 (8.0)		393.2 (112.9)
2025	22.0 (7.2)	39.9 (15.6)	71.9 (51.2)	2.0 (2.0)	135.7 (51.3)
Mean	95.8 (23.6)	179.9 (33.0)	43.9 (13.0)	1.3 (0.8)	320.9 (49.3)
Redear					
2011	16.0 (13.1)	51.9 (16.3)	26.0 (2.0)	109.8 (19.7)	203.6 (12.0)
2013		91.8 (19.0)	37.9 (17.7)	14.0 (7.2)	143.7 (36.1)
2015	6.0 (3.5)	95.8 (24.9)	89.8 (44.9)	4.0 (4.0)	195.6 (32.9)
2017	2.0 (2.0)	103.8 (20.3)	63.9 (27.7)	47.9 (22.7)	217.6 (19.0)
2019	49.9 (27.9)	277.5 (40.5)	91.8 (31.9)	161.7 (52.3)	580.8 (92.2)
2021	10.0 (5.3)	101.8 (21.0)	61.9 (5.3)	65.9 (12.5)	239.5 (3.5)
2023	69.9 (19.7)	167.7 (28.3)	53.9 (15.8)	22.0 (8.7)	313.4 (22.5)
2025	4.0 (4.0)	49.9 (17.7)	99.8 (14.4)	18.0 (3.5)	171.7 (34.8)
Mean	19.7 (6.4)	117.5 (16.2)	65.6 (8.8)	55.4 (12.6)	258.2 (29.8)

uftg05cl.d11, uftg04cl.d13, uftg05cl.d15-d25

Table 67. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Carlson Lake (Ft. Knox) from 2011-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2011	201.6 (35.3)	171.7 (35.0)	20.0 (5.3)	8.0 (4.0)	401.2 (63.1)
2013	10.0 (7.2)	125.8 (12.0)	49.9 (20.8)	2.0 (2.0)	187.6 (7.2)
2015	53.9 (24.9)	61.9 (4.0)	101.8 (21.0)		217.6 (13.1)
2017	27.9 (2.0)	143.7 (24.2)	143.7 (18.3)	10.0 (7.2)	325.4 (20.0)
2019	22.0 (5.3)	67.9 (17.1)	125.8 (33.0)	6.0 (0.0)	221.6 (50.9)
2021	20.0 (10.0)	159.7 (16.3)	61.9 (17.1)	6.0 (6.0)	247.5 (35.3)
2023	20.0 (8.7)	95.8 (9.2)	63.9 (7.2)	4.0 (4.0)	183.6 (2.0)
2025	18.0 (3.5)	95.8 (15.8)	71.9 (27.0)		185.6 (19.3)
Mean	46.7 (13.4)	115.3 (9.8)	79.8 (10.0)	4.5 (1.4)	246.3 (18.1)

uftg05cl.d11, uftg04cl.d13, uftg05cl.d15-d25

Table 68. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Easy Walker Park Pond on 19 May 2025. Standard errors were not calculated because only one sampling run could be completed.

	Inch class																	
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	CPUE
Bluegill	1	1	10	13	37	7											69	413.2
Largemouth bass				1	10	7	21	20	9	4	2	1				1	76	455.1
Channel catfish									1				1				2	12.0
Redear sunfish					2	2		2									6	35.9
Green sunfish			1														1	6.0

uftg05ew.d25

Table 69. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-25) and redear sunfish (2019-25) collected at Easy Walker Park Pond. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	59.9	179.6	12.0		251.5
2012		64.7	123.5		188.2
2014		107.8	89.8		197.6
2016		209.6	35.9		245.5
2019		335.3	287.4		622.8
2021		47.9	59.9		107.8
2023		24.0	113.8	12.0	149.7
2025	6.0	143.7	263.5		413.2
Mean	8.2 (7.4)	139.2 (36.1)	123.5 (35.8)	1.5 (1.5)	272.5 (59.5)
Redear					
2019		77.8	12.0		89.8
2021		24.0	323.4	59.9	407.2
2023		6.0	6.0	65.9	77.8
2025			24.0	12.0	35.9
Mean		27.0 (17.7)	91.3 (77.4)	34.4 (16.7)	152.7 (85.6)

uftg04ew.d10-d12, uftg05ew.d14, uftg04ew.d16, uftg05ew.d19-d25

Table 70. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Easy Walker Park Pond from 2010-25. Standard errors are in parentheses.

	Length group (in)				
Year	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	Total
2010	233.5	263.5	12.0		509.0
2012	17.7	335.3	64.7	5.9	423.5
2014	24.0	83.3	47.9		155.7
2016	101.8	179.6	29.9	29.9	341.3
2019	6.0		6.0	35.9	47.9
2021	263.5	143.7	29.9		437.1
2023	227.5	137.7	77.8	12.0	455.1
2025	107.8	323.4	18.0	6.0	455.1
Mean	122.8 (37.3)	184.1 (41.9)	35.9 (9.1)	11.2 (5.0)	354.0 (58.3)

uftg04ew.d10-d12, uftg05ew.d14, uftg04ew.d16, uftg05ew.d19-d25

Table 71. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Anderson County Community Park Lake on 10 October 2025. Additional samples were collected in 2013, 2016, 2019 and 2022.

	Inch class														
Year	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
2013		1	1	4	4									10	5.0
2016								1						1	0.3
2019								2						2	0.7
2022														0	0.0
2025	1		4	13	16	21	11	9	4	1	2	5	3	90	30.0

ufcf09ac.d13-d16, ufcf10ac.d19-d25

Table 72. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Anderson County Community Park Lake from 2013-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013	1	90	9	85 (3)					10	86 (3)
2016			1	90					1	90
2019					2	94 (1)			2	94 (1)
2022									0	
2025			65	83 (1)	24	85 (2)			89	84 (1)

ufcf09ac.d13-d16, ufcf10ac.d19-d25

Table 73. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Camp Ernst Lake on 9 October 2025. Additional samples were collected in 2013, 2014, 2017, 2020 and 2022.

	Inch class																					
Year	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Total	CPUE
2013	3	11	30	27	39	33	22	26	17	17	10	5	4	2		1	2			1	250	83.3
2014		2	25	120	173	175	100	47	22	10	9	9	5	3	1		1				702	234.0
2017		2	16	19	30	46	67	44	33	16	18	15	13	5	7	3	3		1		338	112.7
2020				1	3		4	6	3	1		1									19	6.3
2022	1	4	25	26	39	31	28	21	22	15	19	5	4	1	4						245	81.7
2025		3	17	22	28	33	33	28	24	17	12	8	5	3	1						234	78.0

ufcf10ce.d13-d25

Table 74. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Camp Ernst Lake from 2013-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013	44	89 (1)	147	83 (1)	56	85 (1)	3	97 (6)	250	85 (1)
2014	16	92 (3)	282	83 (1)	46	83 (2)			344	84 (1)
2017	12	92 (3)	155	83 (1)	93	85 (1)	3	85 (2)	263	84 (1)
2020			14	84 (1)	5	82 (3)			19	84 (1)
2022	30	75 (3)	145	79 (2)	70	78 (1)			145	78 (1)
2025	20	96 (2)	144	85 (1)	70	82 (2)			234	85 (1)

ufcf10ce.d13-d25

Table 75. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Robert J. Barth Lake on 16 October 2025. An additional sample was collected in 2023.

	Inch class																		
Year	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	CPUE
2023	3			5	9	11	16	13	19	9	3	10	4		1		1	104	34.7
2025	1	3	12	6	3	1	4	1	1	1	2	2		1				38	12.7

ufcf10rb.d23-d25

Table 76. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Robert J. Barth Lake from 2023-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2023	8	89 (4)	68	79 (1)	28	82 (1)			104	81 (1)
2025	22	87 (3)	10	81 (2)	6	84 (3)			38	85 (2)

ufcf10rb.d23

Table 77. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Kentucky Horse Park Rolex Lake on 17 October 2025. Additional samples were collected in 2017, 2018, 2021 and 2023.

	Inch class																		
Year	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	CPUE
2017	3	56	189	421	274	108	108	54	37	13	6	5	7	4	1	1			1,287	437.0
2018		9	44	140	190	176	88	58	19	7	4				1	1			737	245.7
2021		1	13	53	68	74	52	37	18	13	6	6					1		342	114.0
2023			1	6	15	19	34	50	43	35	23	14	9	2		2	1	1	255	85.0
2025			1	3	13	17	20	24	15	5	8	3	3	2				1	115	38.3

ufcf10rl.d17-d25

Table 78. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Kentucky Horse Park Rolex Lake from 2017-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2017	90	98 (3)	108	85 (1)	18	85 (2)			216	90 (1)
2018	36	94 (2)	148	84 (1)	13	82 (3)			197	86 (1)
2021	67	86 (1)	249	80 (0)	26	80 (2)			342	81 (0)
2023	7	96 (7)	161	83 (1)	86	80 (1)	1	107	255	83 (1)
2025	4	91 (2)	89	83 (1)	21	93 (2)	1	108	115	86 (1)

ufcf10rl.d17-d25

Table 79. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Jacobson Park Lake on 10 October 2025. Additional samples were collected in 2012, 2014, 2015, 2017, 2020 and 2023.

	Inch class																			
Year	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	CPUE
2012		1	2				1					1				2			7	2.3
2014		6	15	39	77	103	91	46	31	26	11	7	4	3	5	2	1	2	469	156.3
2015				2	6	16	23	24	7	9	3	1	1	1	1			1	95	31.7
2017	1	21	224	107	24	18	32	28	19	7	5	3	6	1	1	2			499	166.3
2020			1		2	10	15	8	11	5	2				1				55	18.3
2023		4	56	105	85	58	40	22	14	2	2	1	1		2				392	131.7
2025		1			3	6	19	25	23	19	8	8	11	4	1	2	2		132	44.0

ufcf10jp.d12-d15, ufcf09jp.d17, ufcf10jp.d20-d25

Table 80. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Jacobson Park Lake from 2012-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2012	3	106 (9)	1	78	3	103 (3)			7	101 (5)
2014	32	101 (2)	126	93 (1)	58	98 (2)	2	100 (18)	218	95 (1)
2015	2	98 (2)	76	91 (1)	16	97 (3)	1	105	95	92 (1)
2017	56	89 (2)	46	83 (1)	17	83 (3)			119	86 (1)
2020	1	106	46	99 (1)	8	94 (2)			55	98 (1)
2023	70	92 (2)	108	86 (1)	8	102 (6)			186	89 (1)
2025			76	87 (1)	55	93 (2)			131	90 (1)

ufcf10jp.d12-d15, ufcf09jp.d17, ufcf10jp.d20-d25

Table 81. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Kess Creek Park Lake on 24 October 2025. Additional samples were collected in 2019 and 2022.

	Inch class														
Year	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
2019	1	1	3	6	8	8	4	2	2		3			38	12.7
2022	12	9	12	21	23	13	5	6	2	3	2		1	109	36.3
2025	2	7	16	13	9	8	7	1	2	2				67	22.3

ufcf10ks.d19-d25

Table 82. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Kess Creek Park Lake from 2019-25. Standard errors are in parentheses.

Year	Length group (in) 7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2019	2	85 (10)	28	91 (2)	7	93 (4)			37	91 (2)
2022	21	85 (2)	74	81 (1)	14	86 (4)			109	82 (1)
2025	9	84 (2)	53	82 (1)	5	77 (3)			67	82 (1)

ufcf10ks.d19-d25

Table 83. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at James D. Beville Park Lake on 23 October 2025. Additional samples were collected in 2015, 2019, 2021 and 2023.

Year	Inch class 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	CPUE
2015		1	1	8	30	45	42	21	16	3			1				168	56.0
2019			1		2	6	4	8	8	4		2	1				36	12.0
2021	1	15	26	37	63	55	52	39	29	9	1	1	1			1	330	110.0
2023		9	14	21	31	26	34	36	23	23	6	8	2				236	78.7
2025			1	3	11	18	13	21	16	7	6	3	2	1	2		104	34.7

ufcf10jb.d15-d25

Table 84. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at James D. Beville Park Lake from 2015-25. Standard errors are in parentheses.

Year	Length group (in) 7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2015	2	90 (13)	146	87 (1)	19	89 (2)			167	88 (1)
2019	1	87	20	85 (3)	15	90 (3)			36	87 (2)
2021	31	82 (1)	112	77 (1)	32	79 (1)			175	78 (1)
2023	23	95 (2)	148	84 (1)	65	81 (1)			236	84 (1)
2025			66	90 (1)	37	89 (2)			103	90 (1)

ufcf10jb.d15-d25

Table 85. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets three sets; 72-hr soak time) that were set at Rotary Park Lake on 24 October 2025. Additional samples were collected in 2019 and 2022

	Inch class															
Year	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
2019	1		5	14	18	13	12	11	7	6	3	1		1	92	46.0
2022	4	3	8	13	8	19	14	10	5		1		1		86	28.7
2025	1	1	2	4	7	7	4	1	3	3	2	1	1	2	39	13.0

ufcf10rp.d19-d25

Table 86. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Rotary Park Lake from 2019-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2019	6	103 (3)	66	92 (2)	18	87 (2)			90	92 (1)
2022	15	97 (3)	64	83 (1)	7	82 (3)			86	86 (1)
2025	4	92 (7)	23	84 (2)	12	90 (3)			39	86 (2)

ufcf10rp.d19-d25

Table 87. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Madisonville City Park Lake South on 23 October 2025. Additional samples were collected in 2015, 2019 and 2022.

	Inch class																							
Year	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total	CPUE
2015										1		1												2	0.7
2019	1	3		5	14	29	48	58	39	32	24	15	10	6	1		3							288	96.0
2022		1	11	33	47	44	28	23	25	22	22	10	5	5	3		2		1				1	283	94.3
2025					1	1	3	4	5	8	10	10	6	2		1					1	1		53	17.7

ufcf10mv.d15-d25

Table 88. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Madisonville City Park Lake South from 2015-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2015					2	93 (5)			2	93 (5)
2019	2	97 (13)	48	89 (2)	40	85 (1)			92	88 (1)
2022	12	95 (5)	175	87 (2)	92	84 (1)	4	107 (8)	283	86 (1)
2025			9	87 (2)	42	86 (1)	2	100 (2)	53	87 (1)

ufcf10mv.d15-d25

Table 89. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Lake Mingo on 10 October 2025. Additional samples were collected in 2013, 2014, 2017, 2020 and 2022.

	Inch class													
Year	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE
2013			3	2	1			1	2				9	3.0
2014		1	5	16	15	11	15	13	4	2	1	1	84	28.0
2017			1	3	5	1	1		2				13	4.3
2020	1	5	4	5	5	4	1		1		1		27	9.0
2022		3	1	2	2	3							11	3.7
2025			4	1	2	2	3	5	6	2	1		26	8.7

ufcf09lm.d13, ufcf10lm.d14, ufcf09lm.d17, ufcf10lm.d20-d25

Table 90. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Lake Mingo from 2013-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013			6	89 (2)	3	94 (4)			9	91 (2)
2014			36	99 (2)	47	98 (1)			83	98 (1)
2017			9	92 (4)	4	101 (4)			13	95 (3)
2020			20	87 (1)	7	94 (7)			27	88 (2)
2022			6	103 (10)	5	100 (5)			11	102 (6)
2025			7	91 (5)	19	92 (3)			26	92 (2)

ufcf09lm.d13, ufcf10lm.d14, ufcf09lm.d17, ufcf10lm.d20-d25

Table 91. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Southland Church Lake on 10 October 2025. Additional samples were collected in 2019 and 2022.

	Inch class																
Year	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	CPUE
2019				4	9	4	7	2								26	8.7
2022	1		6	3	5	3	2	2			1					23	7.7
2025	1	1	2	6	11	9	1	2	1				2		1	37	12.3

ufcf10so.d20-d25

Table 92. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Southland Church Lake from 2020-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2020			24	92 (2)	2	92 (16)			26	92 (2)
2022	1	96	19	87 (2)	3	88 (4)			23	87 (2)
2025	2	91 (11)	29	86 (2)	6	95 (4)			37	88 (2)

ufcf10so.d20-d25

Table 93. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Middleton Mills Long Pond on 16 October 2025. Additional samples were collected in 2012, 2016, 2019 and 2022.

	Inch class																
Year	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
2012		37	85	80	55	19	16	6	5	2	2	3	1			311	103.7
2016			8	12	22	24	25	12	7	2	4	3	1			120	40.0
2019	1	2	6	9	23	39	48	29	14	6	2	1	4	2		186	62.0
2022				3	3	5	1	1		1		1				15	5.0
2025		4	3	21	14	22	17	13	6	13	1	1			1	116	38.7

ufcf11ml.d12, ufcf10ml.d16-d25

Table 94. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Middleton Mills Long Pond from 2012-25. Standard errors are in parentheses.

Year	Length group (in) 7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2012	109	116 (3)	83	96 (1)	8	94 (2)			200	107 (2)
2016	20	93 (3)	86	87 (1)	10	84 (6)			116	88 (1)
2019	18	93 (3)	153	84 (1)	15	91 (3)			186	86 (1)
2022	3	82 (3)	10	86 (2)	2	85 (9)			15	85 (2)
2025	25	96 (3)	72	86 (1)	16	84 (2)			116	90 (1)

ufcf11ml.d12, ufcf10ml.d16-d25

Table 95. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Middleton Mills Shelterhouse Pond on 16 October 2025. Additional samples were collected in 2011, 2012, 2016, 2019 and 2022.

Year	Inch class 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
2011	3	12	10	18	21	22	22	3	1				1		1	114	38.0
2012			4	6	6	3	5	2		2	2	1				31	10.3
2016			2	5	7	12	10	11	10	1	2	3				63	21.0
2019			1		4	3	5	3	1	1				1	1	20	6.7
2022			1	1	6	5	5	2	4	1						25	8.3
2025		1		6	4	7	16	12	6	9	2	1				66	22.0

ufcf09ms.d11, ufcf11ms.d12, ufcf10ms.d16-d25

Table 96. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Middleton Mills Shelterhouse Pond from 2011-25. Standard errors are in parentheses.

Year	Length group (in) 7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2011	43	96 (2)	69	88 (1)	2	113 (5)			114	91 (1)
2012	10	103 (3)	16	90 (2)	5	97 (2)			31	95 (2)
2016	7	99 (6)	50	85 (3)	6	85 (4)			63	87 (2)
2019	1	110	16	85 (2)	3	99 (4)			20	88 (2)
2022	2	90 (6)	22	82 (2)	1	80			25	82 (2)
2025	7	87 (4)	45	79 (1)	14	83 (3)			66	81 (1)

ufcf09ms.d11, ufcf11ms.d12, ufcf10ms.d16-d25

Table 97. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Prisoners Lake on 9 October 2025. Additional samples were collected in 2013, 2016, 2019, 2021 and 2023.

Year	Inch class 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Total	CPUE
2013	1	2	23	16	14	12	5	4		2	1	1		1							82	27.3
2016		2	2	22	10	6	9	6	2		2										61	20.3
2019		3	14	15	25	31	71	56	40	20	18	17	10	4	1	3					328	109.3
2021	3	6	9	18	12	23	32	17	19	10	8	4	3			1					165	55.0
2023		2	11	13	27	54	48	43	25	23	18	6	7	2		1	1				281	93.7
2025		2	7	7	8	10	9	7	11	10	5	5	1	1	2					1	86	28.7

ufcf10pl.d13-d25

Table 98. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Prisoners Lake from 2013-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013	42	91 (2)	35	84 (2)	15	81 (6)			82	88 (1)
2016	25	98 (3)	33	86 (2)	2	100 (0)			60	92 (2)
2019	25	82 (2)	92	77 (1)	63	82 (1)			180	80 (1)
2021	36	99 (5)	103	81 (2)	26	78 (1)			165	85 (2)
2023	26	88 (2)	197	75 (1)	58	79 (1)			281	77 (1)
2025	2	86 (4)	40	94 (2)	24	92 (2)			67	94 (1)

ufcf10pl.d13-d25

Table 99. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Whitehall Park Lake on 17 October 2025. Additional samples were collected in 2013, 2017, 2020 and 2022.

	Inch class																	
Year	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	CPUE
2013	3	3	6	10	8	9	2			2							43	14.3
2017	1	2	3	4	4	11	26	36	24	14	20	12	4		1	1	163	54.3
2020							2	1									3	1.0
2022		1	2	10	15	33	35	37	7	7	7	4	2		2		162	54.0
2025		1	2	6	30	37	35	14	14	6	4	4	2		2		157	52.3

ufcf09wh.d13-d17, ufcf10wh.d20-d25

Table 100. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Whitehall Park Lake from 2013-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013	12	96 (4)	29	93 (2)	2	97 (7)			43	94 (2)
2017	6	86 (4)	81	87 (1)	76	87 (1)			163	87 (1)
2020			3	86 (11)					3	86 (11)
2022	3	84 (4)	130	81 (1)	29	86 (2)			162	82 (1)
2025	3	103 (13)	122	88 (1)	32	96 (3)			157	90 (1)

ufcf09wh.d13-d17, ufcf10wh.d20-d25

Table 101. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Mike Miller Park Lake on 23 October 2025. Additional samples were collected in 2013, 2016, 2019 and 2022.

	Inch class																			
Year	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	CPUE
2013	2	17	125	138	96	99	73	54	30	15	13	2	3		2				669	223.0
2016		5	12	25	33	35	42	52	45	19	16	9	3	1	1	2			300	100.0
2019		1	3	4	12	26	46	35	32	11	8	14	4	3	1			1	201	100.5
2022		5	17	31	42	38	48	23	28	8	18	9	5	3	1	1			275	91.7
2025			1	11	34	30	25	5	6	8	8	2	2						132	44.0

ufcf10mm.d13-d25

Table 102. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Mike Miller Park Lake from 2013-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013	60	93 (2)	103	86 (1)	35	86 (2)			198	88 (1)
2016	32	83 (1)	140	79 (1)	51	79 (1)			223	80 (1)
2019	1	108	61	77 (1)	31	82 (2)	1	85	94	79 (1)
2022	53	84 (1)	177	78 (1)	45	81 (1)			275	80 (1)
2025	12	85 (2)	100	84 (1)	20	87 (2)			132	85 (1)

ufcf10mm.d13-d25

Table 103. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Lake Montgomery on 24 October 2025. Additional samples were collected in 2013, 2016, 2019 and 2022.

	Inch class																		
Year	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	CPUE
2013		9	49	140	95	69	41	30	14	7	2	4		3	1			464	154.7
2016				1	1	5	3	7	8	4	6	2	2			1		40	13.3
2019					3	5	22	34	36	9	10	5	2	2	2	2		132	44.0
2022	1	5	39	61	61	67	67	51	28	9	7	3	2				1	402	134.0
2025			2	6	31	62	68	43	43	14	4	6						279	93.0

ufcf10bn.d13-d25

Table 104. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Lake Montgomery from 2013-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013	68	93 (1)	88	87 (1)	17	81 (5)			173	89 (1)
2016	1	105	24	88 (3)	15	84 (6)			40	87 (3)
2019			97	88 (1)	30	88 (2)			127	88 (1)
2022	27	90 (1)	113	82 (1)	22	84 (3)			162	84 (1)
2025	5	92 (10)	170	85 (1)	24	86 (1)			199	85 (1)

ufcf10bn.d13-d25

Table 105. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Easy Walker Park Pond on 17 October 2025. Additional samples were collected in 2014, 2016, 2020 and 2023.

	Inch class												
Year	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
2014	2	1	6	5	4	5						23	7.7
2016			1	8	4	7	2	1	1		1	25	8.3
2020												0	0.0
2023		3	2		1	1			1			8	2.7
2025	3	6	10	3	4	3	1	1	1		1	33	11.0

ufcf09ew.d14, ufcf10ew.d16-d25

Table 106. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Easy Walker Park Pond from 2014-25. Standard errors are in parentheses.

	Length group (in)									
Year	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2014	2	101 (11)	21	100 (2)					23	100 (2)
2016			20	90 (2)	5	89 (4)			25	90 (2)
2020									0	
2023			7	93 (4)	1	100			8	94 (4)
2025	3	92 (3)	26	83 (2)	4	97 (5)			33	86 (2)

ufcf09ew.d14, ufcf10ew.d16-d25

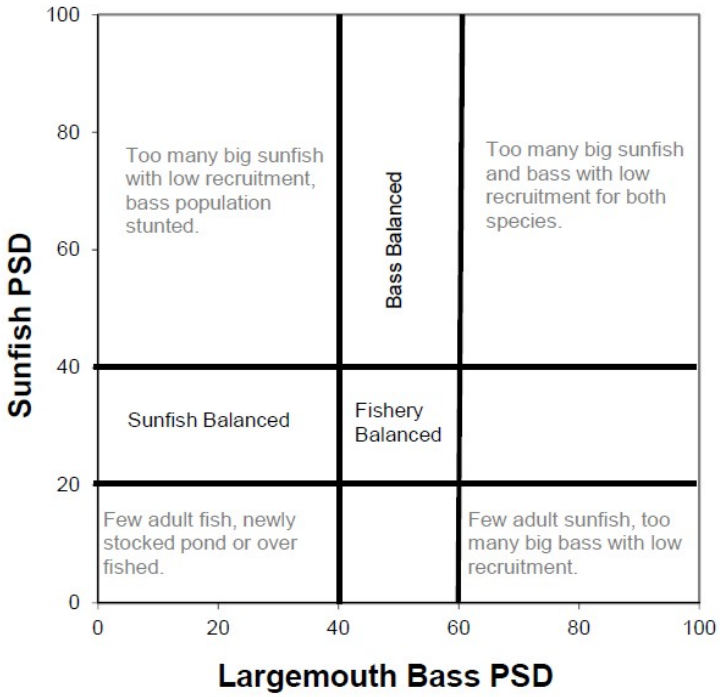

Figure 1. Generally accepted proportional stock density (PSD) index ranges for sunfish (bluegill and redear sunfish, weighted) and largemouth bass populations in small impoundments.

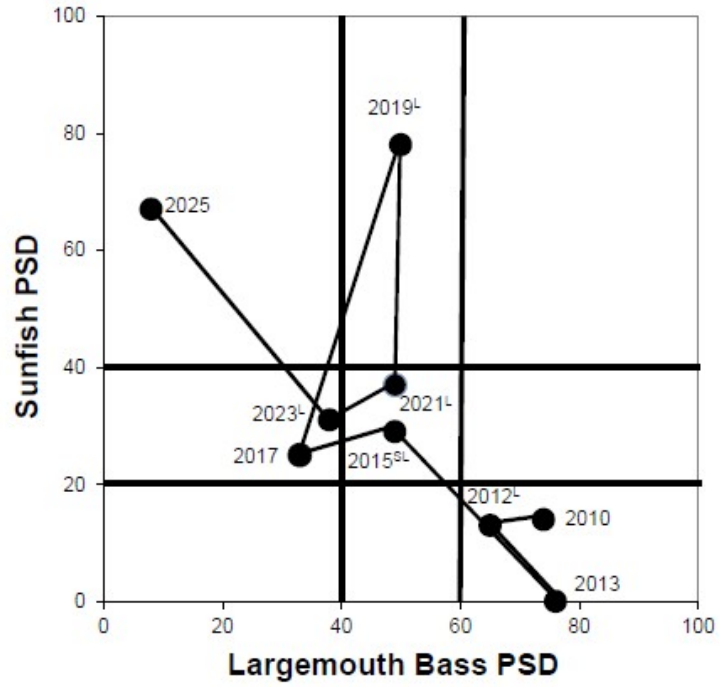

Figure 2. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Anderson County Community Park Lake from 2010-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

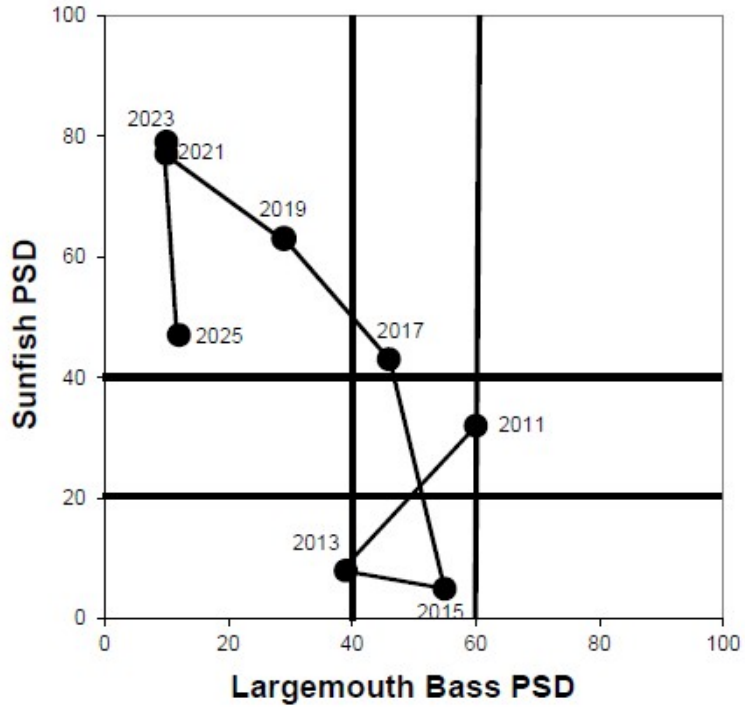

Figure 3. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Camp Ernst Lake from 2011-25.

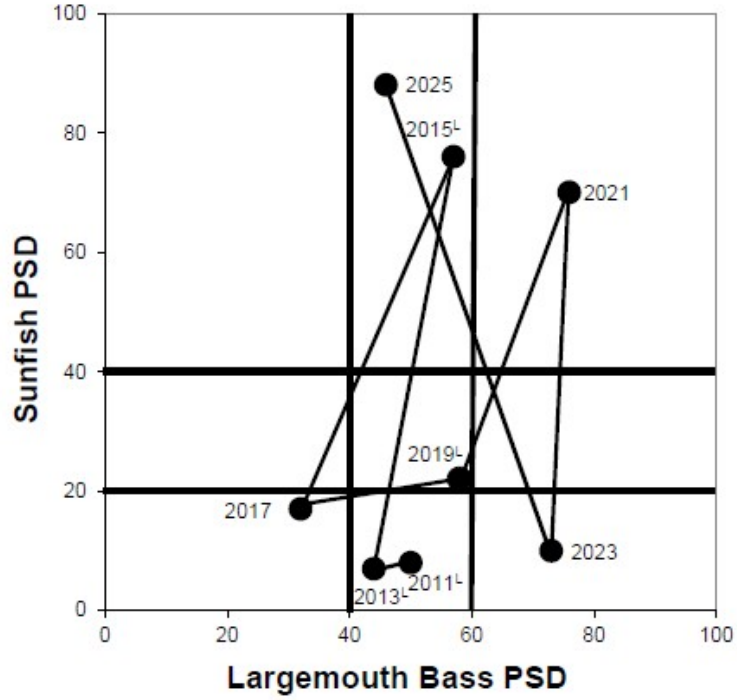

Figure 4. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Millennium Park Pond from 2011-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

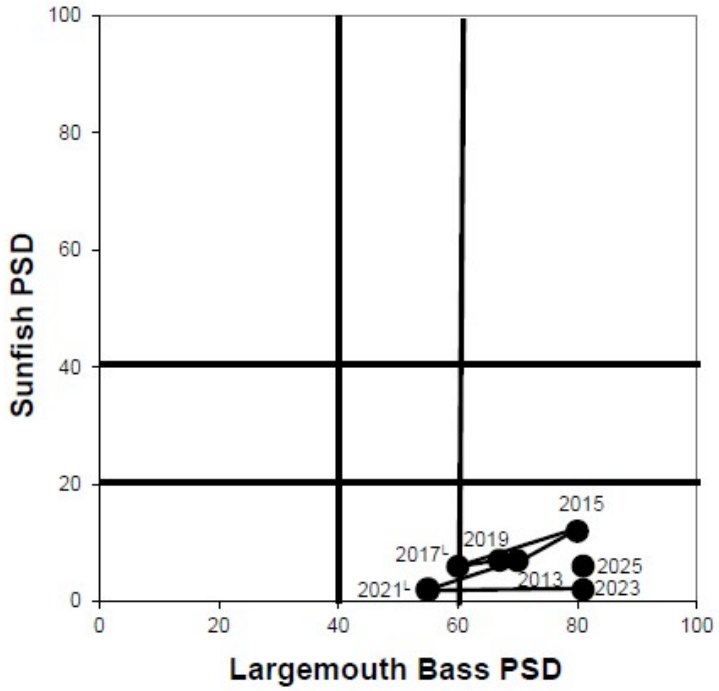

Figure 5. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Jacobson Park Lake from 2013-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

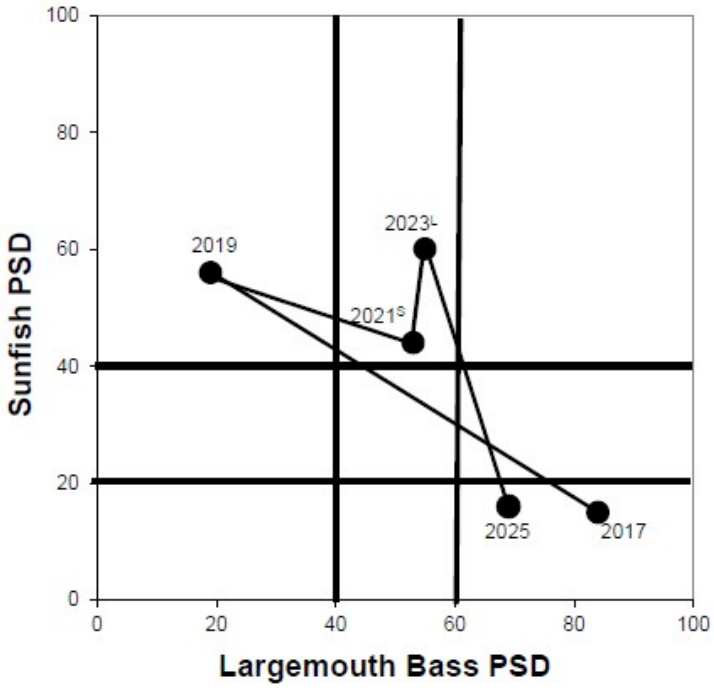

Figure 6. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Flemingsburg Old Reservoir from 2017-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

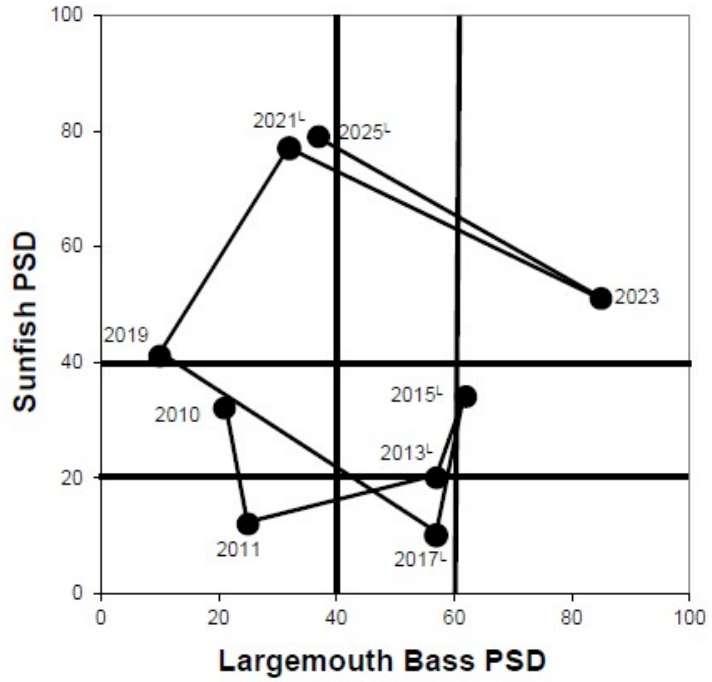

Figure 7. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Lake Pollywog from 2010-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

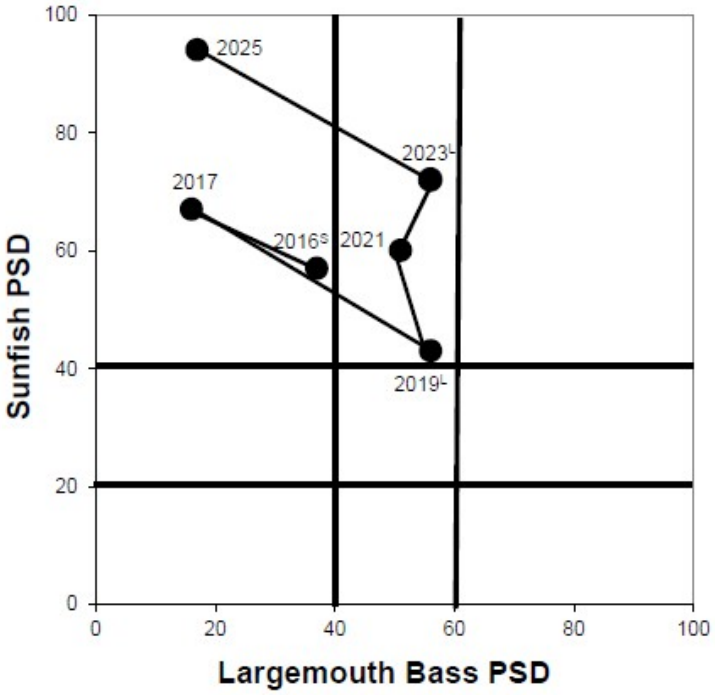

Figure 8. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Leary Lake from 2016-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

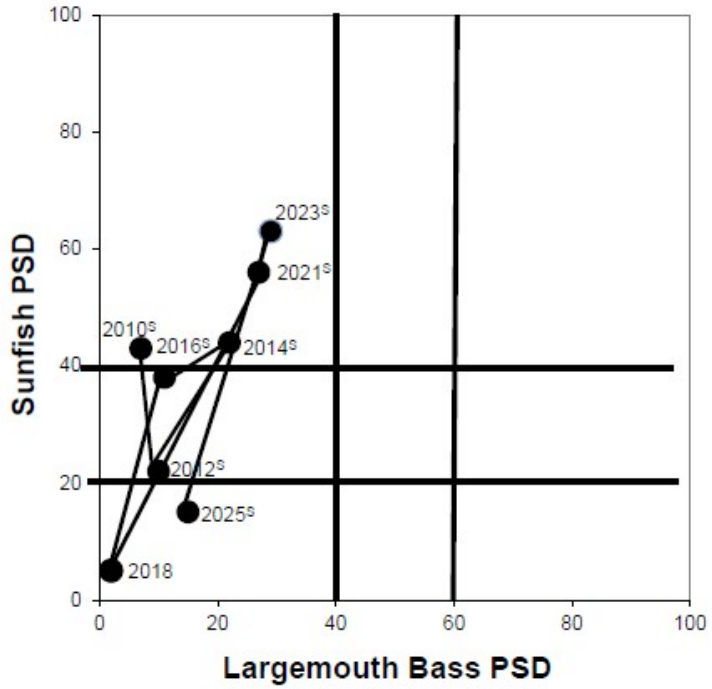

Figure 9. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Kingdom Come State Park Lake from 2010-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

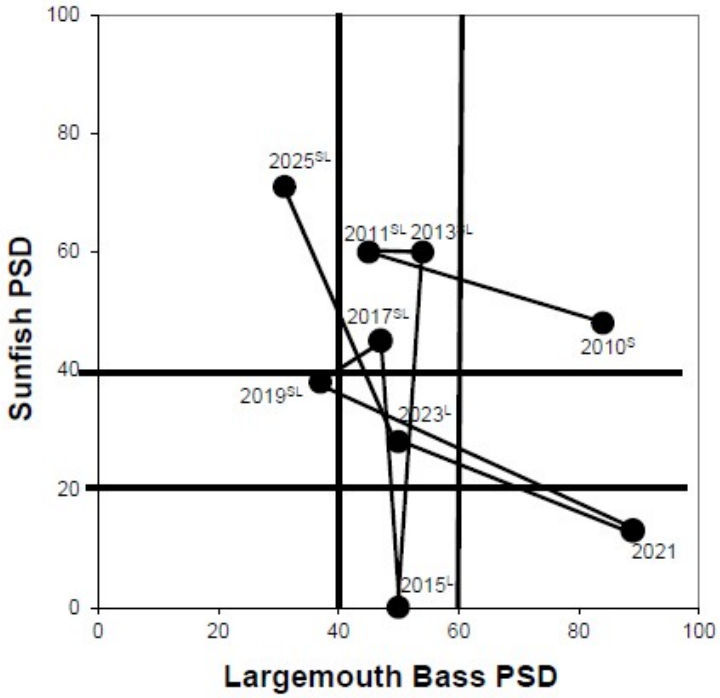

Figure 10. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Cherokee Park Lake from 2010-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

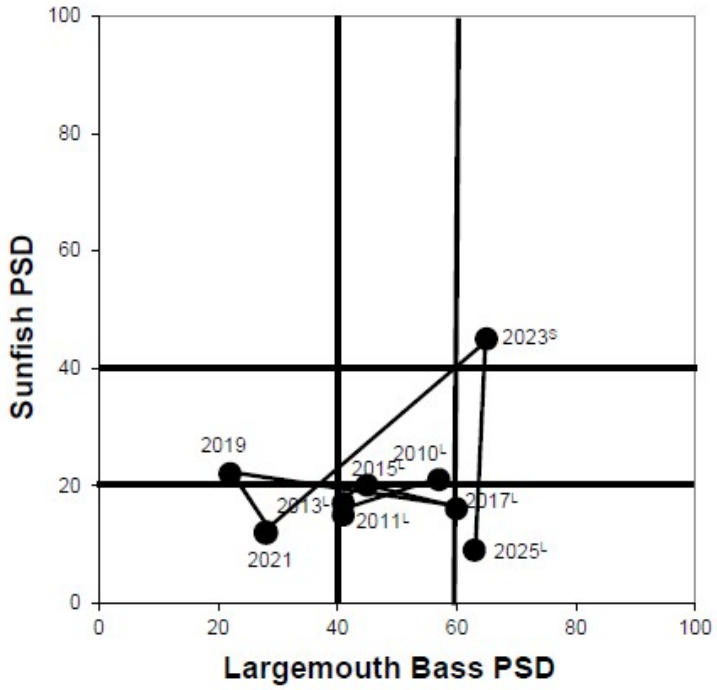

Figure 11. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Fisherman's Park Lake #3 from 2010-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

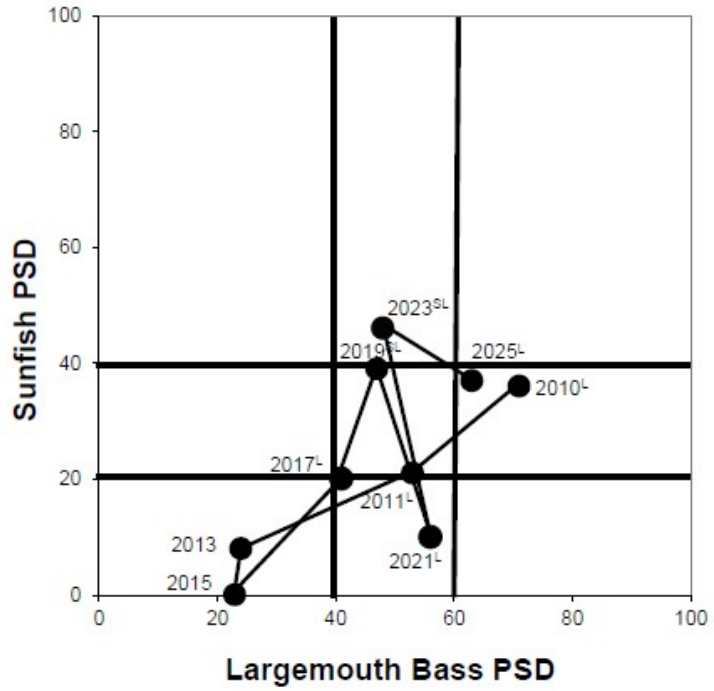

Figure 12. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Fisherman's Park Lake #4 from 2010-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

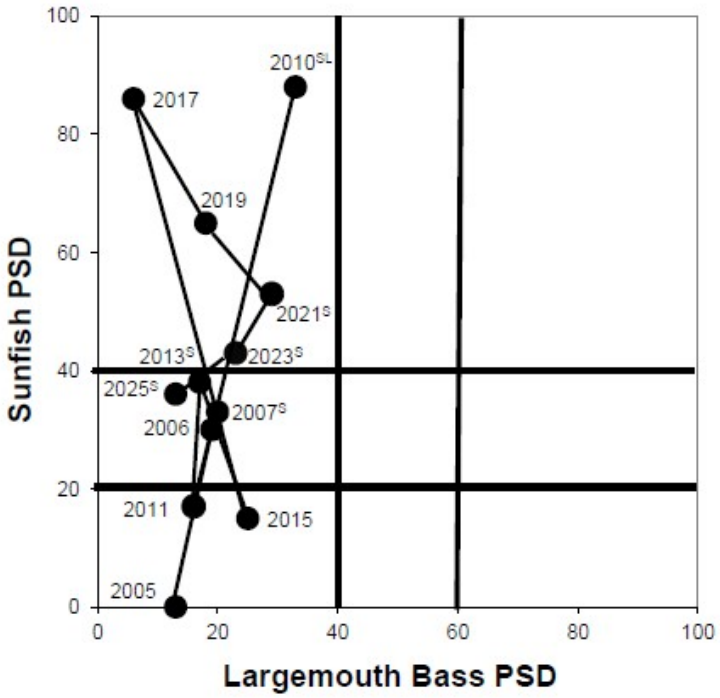

Figure 13. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Tom Wallace Park Lake from 2005-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

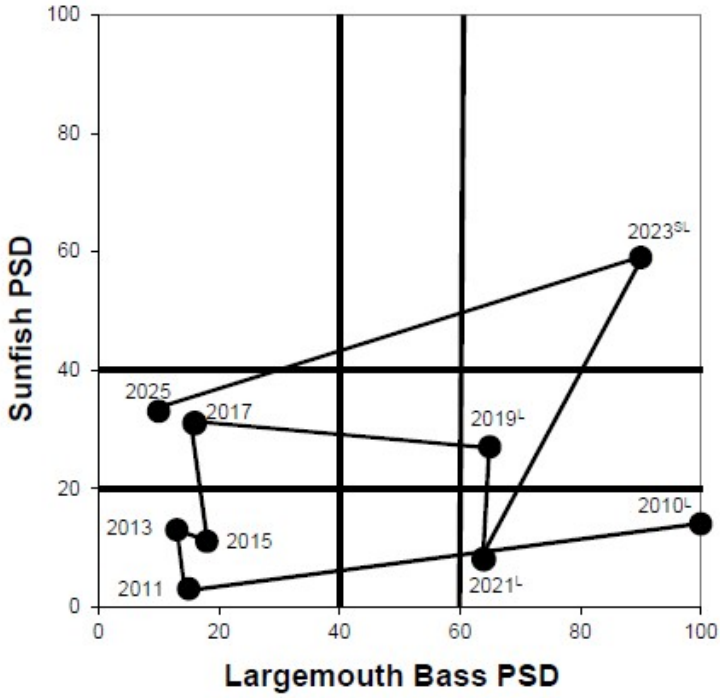

Figure 14. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Waverly Park Lake from 2010-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

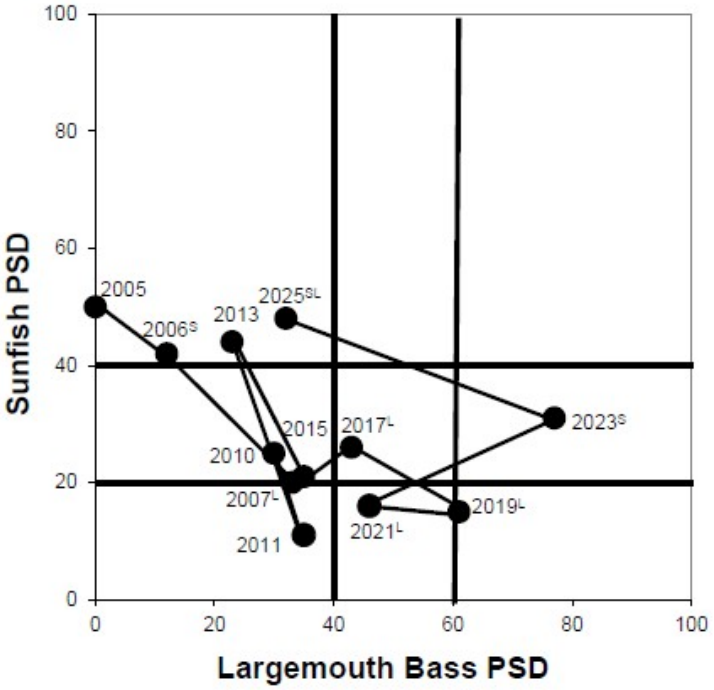

Figure 15. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at William F. Miles Angler Lake from 2005-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

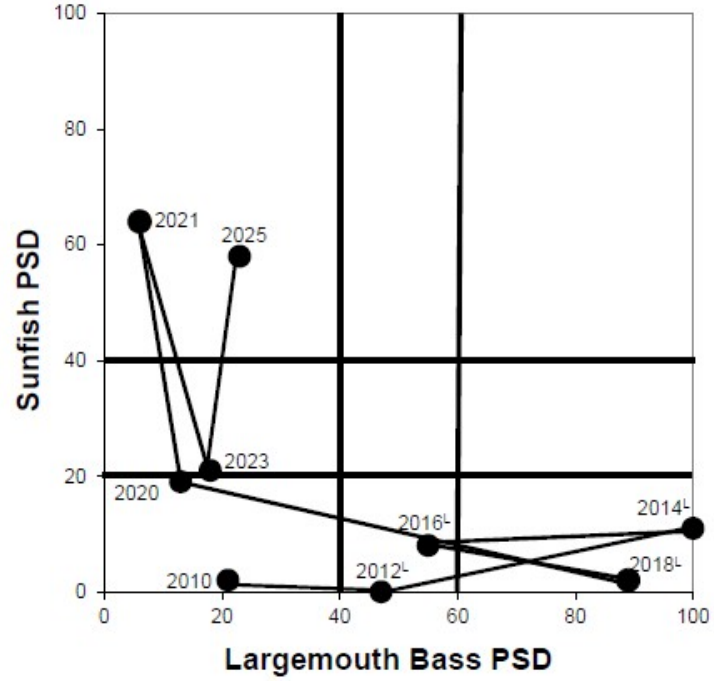

Figure 16. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Middleton Mills Long Pond from 2010-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

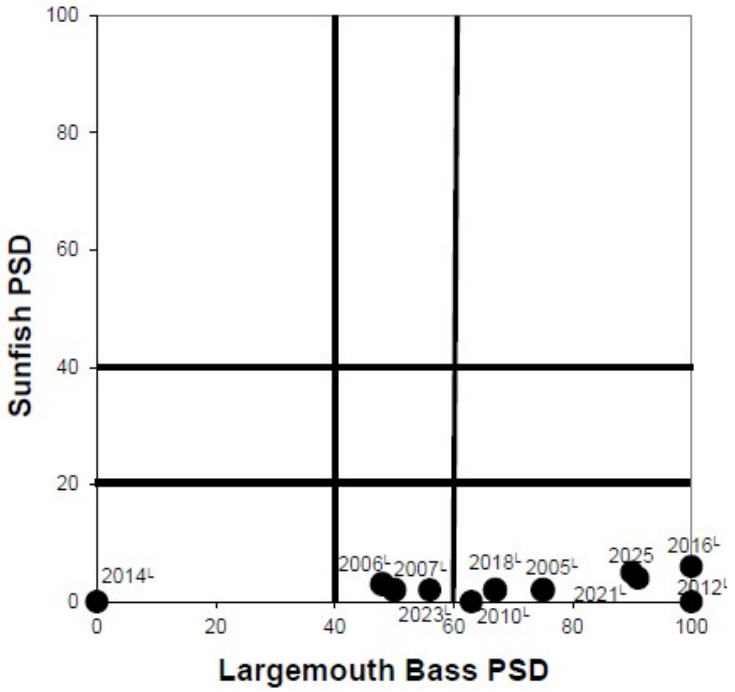

Figure 17. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Middleton Mills Shelterhouse Pond from 2005-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

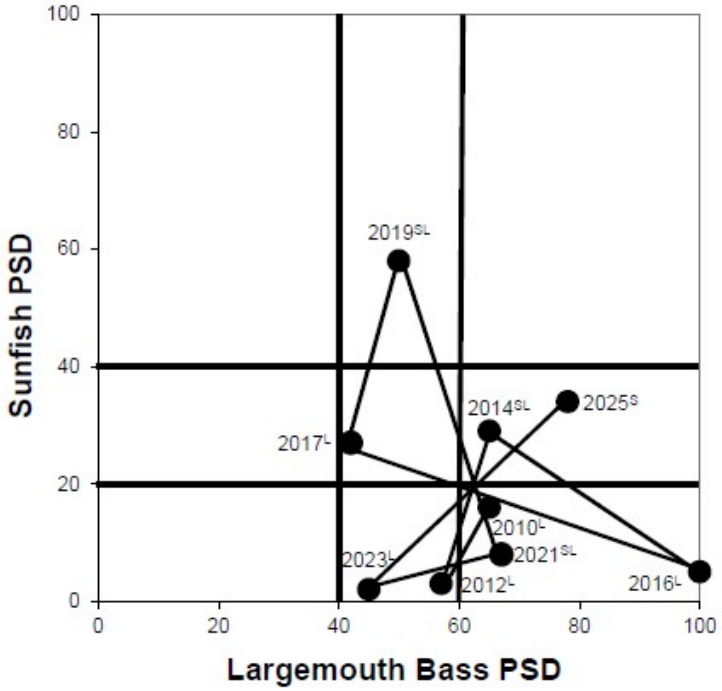

Figure 18. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Prisoners Lake from 2010-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

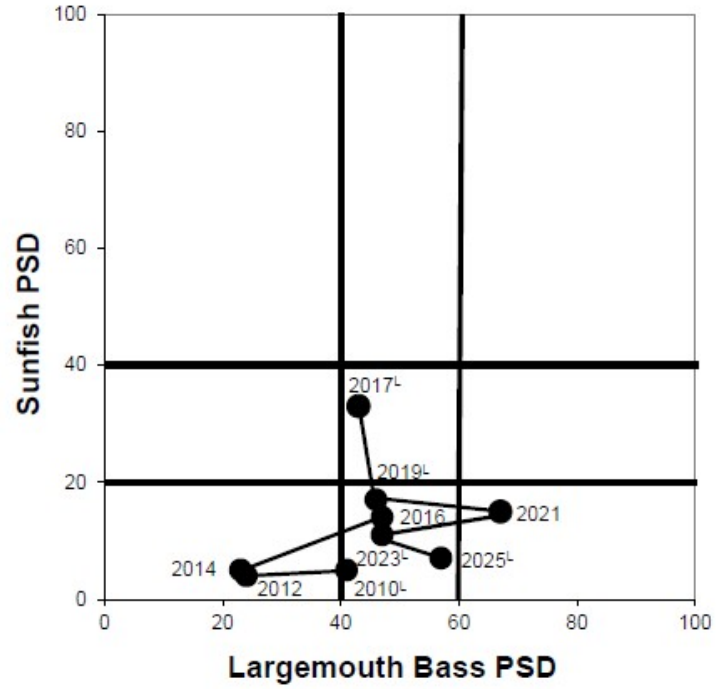

Figure 19. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Brickyard Pond from 2010-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

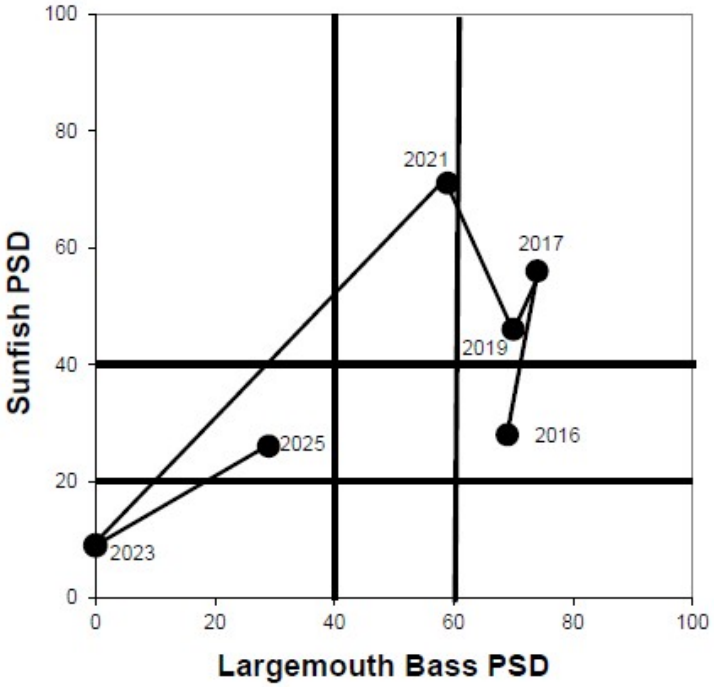

Figure 20. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Logan Hubble Park Lake from 2016-25.

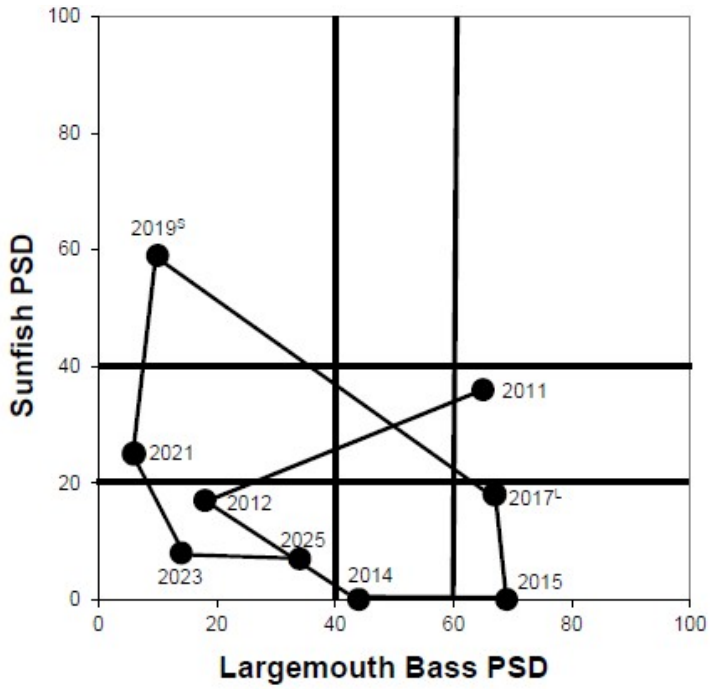

Figure 21. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Whithehall Park Lake from 2011-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

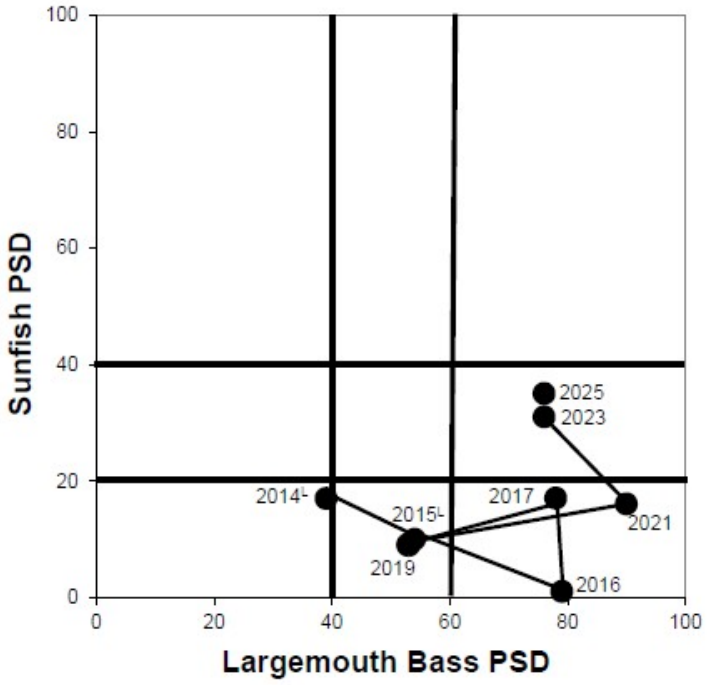

Figure 22. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Maysville-Mason County Recreation Park Lake from 2014-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

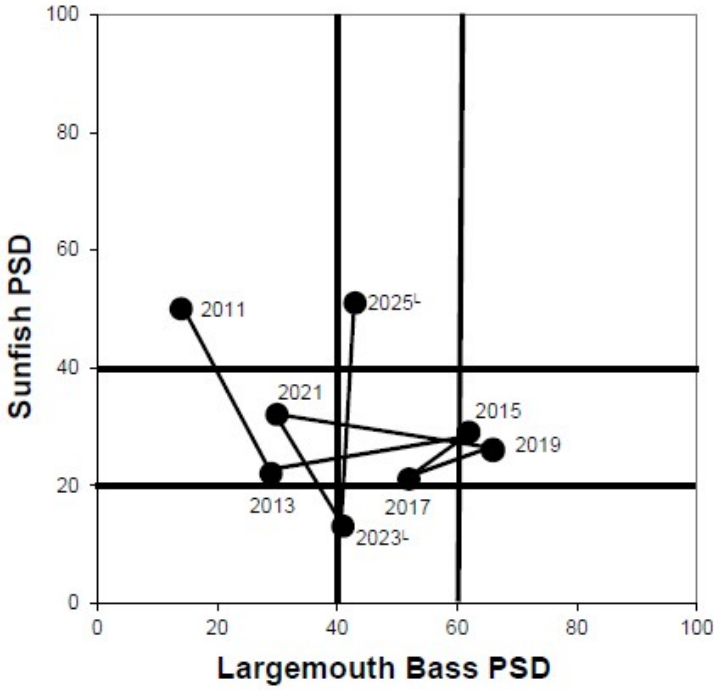

Figure 23. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Carlson Lake (Ft. Knox) from 2011-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

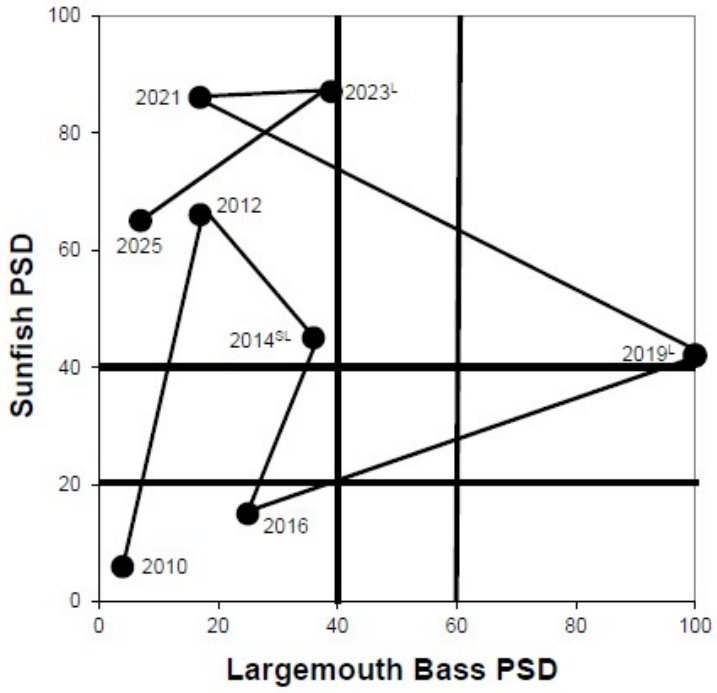

Figure 24. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Easy Walker Park Pond from 2010-25. Superscripts denote occasions where sample size of either sunfish (^{S}) or largemouth bass (^{L}) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

Project II: Evaluation of Angling Effort Using Remote Cameras

FINDINGS

The Fishing in Neighborhoods (FINs) program began in 2006 as a cooperative endeavor between Kentucky Department of Fish and Wildlife Resources (KDFWR) and local municipalities to provide access to quality fishing opportunities close to large populations of people. The FINs program currently includes 45 lakes in 28 counties across Kentucky. An angler attitude survey was conducted at 27 of the lakes in 2012. In addition, five creel surveys have been conducted at central Kentucky FINs lakes since 2010. However, little is known regarding angling effort at lakes where creel surveys have not been previously conducted. Fishing pressure was extremely high at creel surveyed lakes with total angler-hrs ranging from 11,000 – 66,000 hours per lake or 1,400 – 9,500 angler-hrs/acre. Angling effort is perceived to be high at most FINs lakes; however, quantifying effort using creel surveys is expensive and would be cost prohibitive to conduct at all FINs lakes. However, a new tool is available in the form of remote time-lapse cameras, which offer a cost-effective way to estimate angling effort. Using these remote, fixed position cameras it is possible to effectively monitor multiple lakes, capturing effort for a full 12-month period, while capturing daily and seasonal trends.

The FINs lakes are intensively stocked with large “keeper-sized” fish as a put-and-take fishery to sustain quality-fishing opportunities to a diverse group of anglers. To ensure anglers are utilizing these fish stockings, monitoring of angling effort is needed on a lake-by-lake basis as well as at a program scale. The additional knowledge of angling effort, in conjunction with exploitation studies and electrofishing and hoop net sampling, will assist in adaptively managing these fisheries. The angling effort data will aid in determining whether FINs lakes in other parts of the state have similar angling pressure to previously surveyed FINs lakes in Central Kentucky. This data will also aid in assessing if current stocking strategies are adequate for the amount and timing of angling effort. If certain FINs lakes are not receiving the perceived pressure, then stocking rates could be reduced or other lake(s) substituted in the FINs program.

A total of 31 Reconyx Hyperfire HC500 cameras were purchased along with metal lock boxes. Cameras were purchased in January 2015 on price contract for $435 each and lock boxes for $45 each. Additionally, 62 4-GB SDHC cards were purchased for $4 each for image storage and 540 rechargeable AA-batteries and 2 charging ports were purchased for $823. Cameras require 12 AA-batteries to operate, and rechargeable batteries should be much more cost efficient over the long term.

Prior to installing cameras, a letter was sent to lake owners explaining the purpose of the study and seeking the owner’s permission to use cameras within their park. Most of the lakes in the FINs program are not owned by KDFWR, but all have a memorandum of understanding in place. An additional waiver, consent and release form was drafted by the KDFWR attorney and signed by lake owners prior to implementation. Cameras were installed in September 2017, with counts beginning 1 October 2017 and running through 30 September 2018 in most instances. Jacobson Park Lake was surveyed 1 November 2018 through 31 October 2019 due to a delay in getting permission from the City Council to install cameras. Cameras were checked every 6-8 weeks to exchange memory cards and batteries. Both primary and secondary FINs lakes were surveyed to get a range of angling effort (primary lakes are stocked four times annually with catfish, whereas secondary lakes are only stocked twice annually with catfish). The second round of the study included 16 lakes that range in size from 1-46 acres. Data collection for this second round of lakes is complete with analysis still ongoing. Cameras were installed in September 2019, with counts beginning 1 October 2019 and running through 30 September 2020 at the final eight lakes to be surveyed.

Camera lock boxes were mounted to a tree or utility pole with lag bolts about 10-20 ft above the ground. The camera sits inside the lock box and is secured with a lock on the outside. This lock box and height of the cameras should deter vandals. All cameras were mounted to cover maximum bank access, especially anticipated high use areas. Many lakes required multiple cameras to get adequate coverage of the bank access areas. Care was taken during placement that there was no overlap of camera images on lakes that required multiple cameras. This prevented anglers from being counted twice during

analysis. In one instance at Leary Lake, no trees or utility poles were available to get the optimal view of the lake. In this case, the camera was placed inside the lock box, welded to a metal signpost, and placed out in the water. A wooden box was built around the camera and lock box to disguise it as a wood duck nesting box. There is no boating activity on this lake, so the cameras were only susceptible to vandalism during instances when the lake has ice cover. However, the metal poles were set at sufficient depths in the sediment that prevent someone from removing by hand.

The cameras did not cover 100% of the bank access at most lakes so a correction factor was employed to account for missed anglers and estimate total angler effort. Each survey lake was visited multiple times over the course of the study to do a visual count in-person at the same time as the remote cameras took a picture. A linear regression equation, $VC = a + b(CC)$, where the y-intercept was set to 0, was used to generate a correction factor. The dependent variable, Visual Count (VC), is the visual count taken in person at the same time the photo was recorded and the independent variable, Camera Count (CC), is the number of anglers observed on camera(s). Since the y-intercept (a) is equal to 0, the slope of the regression equation (b) is the correction factor. All correction factor linear regression equations were significant at $p < 0.001$ and had excellent coefficients of determination (r^2) in most cases (Table 1). Several lakes had insufficient visual counts to derive a correction factor. Collecting the in-person visual counts was especially challenging at lakes located out of the way and not near travel routes or workstations. Local park staff were contacted to assist with the visual counts in several instances. Even with ample explanation and follow up, the counts obtained by non-KDFWR staff were either lacking or suspect in some cases and thus excluded. Additional visual angler counts are needed in future camera surveys with the goal of a minimum of 30 counts and across the higher usage times to provide a more accurate correction factor.

Cameras were set up to take a picture every half-hour from daylight to dusk. Only images at the top of the hour were used for analysis; however, the half hour pictures helped postulate if someone was fishing as well as aided in the number of in-person visual counts that could be collected for the correction factor. Timelapse Image Analyzer was used to assist KDFWR personnel with image analysis. This free software designed by the University of Calgary speeds up image analysis and reduces errors, by automatically populating many of the fields needed for analysis and reduces data entry errors by placing the image and data entry on the same form. In a previous study, this software was found to cut image analysis time in half versus viewing images and entering data in separate spreadsheet. Cameras were collected after the 12-month period with one instance of vandalism at Logan Hubble Park Lake. The cameras and security box were missing upon retrieval in June 2018.

Project III: Evaluation of Threadfin Shad Stockings and Overwinter Survival in Kentucky Reservoirs

Section I: Paintsville Lake Threadfin Shad Stocking

FINDINGS

The objectives of this study are 1) to determine Threadfin Shad survival and Threadfin Shad/Gizzard Shad relative abundance in Paintsville Lake following the 2023 through 2025 stockings, 2) monitor for potential impacts to Largemouth Bass, Gizzard Shad, and other young-of-year fishes from stocking Threadfin Shad.

Threadfin Shad (*Dorosoma petenense*) were stocked in over 30 reservoirs by Kentucky Department of Fish and Wildlife Resources (KDFWR) from the late 1950's through the 1990's. The goal of these early stockings was to establish Threadfin Shad populations to improve forage for various sportfish. Early introductions to Barren River Lake, Lake Cumberland, and Herrington Lake were successful in establishing Threadfin Shad populations. However, in other reservoirs such as Dewey Lake, Nolin River Lake, and Buckhorn Lake, stocked Threadfin Shad struggled to persist after high initial contributions. Challenges arose over time with Threadfin Shad during the Predatory Fish Evaluation research project during the 1970's. Continuously capturing new broodstock proved difficult, requiring a lot of staff time and resources. When Threadfin Shad were stocked, standing stock in cove rotenone surveys showed little contribution. In years when Threadfin Shad were not stocked, they were non-existent in cove rotenone surveys. Due to these results, the goal of the Threadfin Shad stockings shifted to temporarily adding forage to improve sportfish fisheries in lakes where establishing a population of Threadfin Shad was challenging. Additional research was conducted on Rough River Lake and Dewey Lake by KDFWR in the early 1990's to determine if Threadfin Shad stockings were having positive impacts to the White Crappie (*Pomoxis annularis)* population in reservoirs where a Threadfin Shad population couldn't persist due to overwinter mortality. The study concluded that the Threadfin Shad stockings had minimal benefits to the White Crappie fishery. A thesis project by Eastern Kentucky University in conjunction with KDFWR in the late 1990's explored if Threadfin Shad stockings were having impacts on the Largemouth Bass (*Micropterus nigricans*) population in reservoirs where a Threadfin Shad population couldn't survive due to overwinter mortality at A.J Jolly Lake, Guist Creek Lake, Lake Linville, and Willisburg Lake. No increases in growth or condition were noted in the fisheries. Both projects concluded Threadfin Shad were unsuccessful in increasing sportfish growth and condition when stocking was required to sustain the population and stockings of Threadfin Shad ceased at that time.

In 2023, KDFWR approved the purchase and stocking of 50,000 Threadfin Shad into Paintsville Lake by Johnson County Fiscal Court, in hopes of improving the Largemouth Bass fishery. That same year, the Eastern Fisheries District (EFD) began monitoring Threadfin Shad and Gizzard Shad (*Dorosoma cepedianum*) populations to evaluate reproduction, survival and relative abundance. This research study was initiated in 2024.

Sampling Methods

A literature review was conducted to determine the most appropriate methodology to monitor shad populations. Ichthyoplankton trawls are a primary gear for monitoring larval fish and was selected for this study. A variety of gears have been utilized to survey adult shad populations including purse seines, gill nets, and electrofishing. Electrofishing was selected for sampling adult shad in the spring and fall.

Ichthyoplankton trawls were chosen to survey larval fish populations to evaluate reproduction and initial survival of Threadfin Shad as well as Gizzard Shad reproduction. Trawls were conducted each year from May through September. Sampling initiated 30 minutes after sunset on each sampling night. Trawls were performed at three locations within the reservoir (upper, middle, lower), with two tows at each location. A 3.28 ft x 6.56 ft x 13.12 ft, 1000-micron mesh neuston net with a General Oceanics flow meter attached, was towed 50 ft behind the boat at a goal speed of 1.8 mph for five minutes per sample. After each of the tows, the net was washed down to the cod end, and the sample transferred to quart-size

mason jars, which were strained and then filled with 10% formalin. Samples were kept in formalin for approximately 24 hrs before being transferred to 47.5% ethyl alcohol for short-term storage. Samples were then processed, and all fish were placed in 95% ethyl alcohol for long-term storage. Fish were identified to the genus level and all *Dorosoma spp.* were further identified to species using a stereomicroscope and the Tennessee Reservoirs Larval Fish Guide by Steve Sammons. If there were more than 50 shad in a single sample, 50 randomly chosen shad were identified, and the species composition was extrapolated to the rest of the sample. Flow meter outputs were used for the calculation of speed, distance, and volume of the sample, using the General Oceanics equations.

During February/March 2024 electrofishing gear was used to survey the Paintsville Lake shad population (Figure 1). A total of 30 15-min electrofishing runs were performed (10 runs in upper section consisting of 5 runs in each river arm, and 10 runs in each of the middle and lower sections). Runs were comprised of a mixture of shoreline and offshore sites due to shad being a pelagic species and were spatially separated to cover each section of the lake. After each run shad were identified and measured to the inch class. If more than 200 shad were captured in a run, 200 fish were randomly selected, measured, and identified to extrapolate Threadfin Shad and Gizzard Shad proportions for the remaining shad <9 in in the sample. Shad >9 in were labeled as Gizzard Shad, since this is larger than the anticipated Threadfin Shad maximum length. Sampling effort was increased to a total of 36 15-min electrofishing runs (12 runs in upper section consisting of 6 runs in each river arm, and 12 runs in each of the middle and lower sections) in 2025.

Fall electrofishing was performed in September/October. The fall sampling followed the same data recording parameters as the spring sample but consisted of 72 7.5-min electrofishing runs (24 runs in upper section consisting of 12 runs in each river arm, and 24 runs in each of the middle and lower sections) with a mixture of open water and shoreline runs. This change to the length and number of runs in the fall sample was made to cover more areas of the lake and to avoid an excessive number of fish in the livewell. Fall electrofishing sampling was conducted in 2024 and 2025 and will continue annually until 2028.

Temperature

Due to concerns about the ability of Threadfin Shad to overwinter, temperature loggers were deployed with the Army Corps of Engineers at four different locations throughout the lake in December 2023 (Figure 2). In a widely cited lab study, Threadfin Shad exhibited stress when water temperatures dropped <45°F and high mortality <42.8°F (Griffith 1978). A temperature logger was placed at each location seven foot below the water's surface on a navigation buoy. Temperature data was downloaded from the logger once a year in April. Temperature data was analyzed to determine the length of time the water temperature was <45°F and <42.8°F annually during the winter months (2024-28).

After a few consecutive weeks of cold weather in January 2024, EFD performed temperature profiles on several lake locations and were unsuccessful in finding water >42.8°F at any location or depth. The temperature loggers also did not record any temperature >42.8°F during that time (Figures 3-5). The 2024 temperature logger data indicated the dam location (lower-lake) had the warmest water during the coldest period, followed by Community Point (mid-lake). The upper-lake locations in the Open Fork and Little Paint arms recorded the lowest average daily temperatures of 36.5°F and 38.4°F, respectively. The temperature logger located at the Open Fork location in the upper-lake recorded temperatures <42.8°F for 25 consecutive days, while the logger in the Little Paint location in the upper-lake recorded temperatures <42.8°F for 37 consecutive days. The Community Point logger in the mid-lake section recorded a minimum temperature of 40°F in 2024 and was <42.8°F for 26 consecutive days. The temperature logger at the dam (lower-lake) had a minimum temperature of around 41°F during the coldest period of the winter. The temperature was <42.8°F at the lower-lake section for 12 consecutive days in 2024.

The 2025 temperature logger data indicated the dam location (lower-lake) had the warmest water during the coldest period followed by the two mid-lake locations. The two temperature loggers located in the upper-lake section again had the lowest water temperatures recorded in 2025 (Figures 3-5). The upper-lake locations in the Open Fork and Little Paint arms recorded the lowest average daily temperatures of 35.2°F and 35.4°F, respectively. The temperature logger located at the Open Fork location in the upper-lake recorded temperatures <42.8°F for 31 consecutive days, while the logger in the Little Paint location in the upper-lake recorded temperatures <42.8°F for 30 consecutive days. Both temperature loggers in the mid-lake section recorded minimum temperatures near 39°F in 2025. Both mid-lake locations were below 42.8 degrees for 32 consecutive days in 2025. The temperature logger at the dam (lower-lake) had a minimum temperature of 39.7°F during the coldest period of the winter. The temperature was <42.8°F at the lower-lake section for 28 consecutive days in 2025.

In February 2026 significant mortality of Threadfin Shad was observed in the lake as well as dead fish coming through the spillway into the tailwater of Paintsville Lake. The EFD crew took a temperature profile on 4 February 2026 at the marina in the lower-lake with the warmest reading of 38.3°F in 90 ft of water.

The 2026 temperature logger data indicated the dam location (lower-lake) had the warmest water during the coldest period, followed by the Low Gap Fork (mid-lake). The upper-lake locations in the Open Fork and Little Paint arms recorded the lowest average daily temperatures of 33.2°F and 32.4°F, respectively in 2026 (Figures 3-5). The temperature loggers located in the Open Fork and Little Paint Creek arms in the upper-lake recorded average daily temperatures <42.8°F for 38 and 47 consecutive days, respectively. The logger in the Low Gap Fork (mid-lake) recorded a minimum average daily temperature of 38.8°F in 2026. The temperature recorded in this mid-lake location was <42.8 degrees for 44 consecutive days in 2026. The temperature logger at the dam (lower-lake) had a minimum average daily temperature of 38.2°F during the coldest period of the winter. The temperature was <42.8°F at the lower-lake section for 41 consecutive days in 2026.

Spring Electrofishing

A total of 30 15-min electrofishing runs were conducted on 13 February 2024 at Paintsville Lake to survey the shad population. A total of 1,334 shad were captured during this survey. The catch rate for Threadfin Shad was 17.5 fish/hr, while the Gizzard Shad catch rate was 171.9 fish/hr (Table 1). Most Threadfin Shad sampled were in the 4-5 in classes (88.5%) while most Gizzard Shad were in the 5-6 in classes (86.7%; Figure 6). The vast majority of Threadfin Shad (96.9%) were collected in the mid-lake section, with few shad sampled in the upper and lower-lake sections (0.7% and 2.3%, respectively; Figure 7). The majority of Gizzard Shad were collected in the mid-lake section (56.8%) followed by the upper-lake (41.7%) and lower-lake sections (1.5%). Threadfin Shad made up roughly 10% of all shad sampled in 2024. An additional 50,000 Threadfin Shad were stocked on 11 April 2024 from American Sportfish Hatchery at the request of a local angler group funded by Johnson County Fiscal Court.

A total of 36 15-min runs were conducted on 4, 5, and 7 February 2025 at Paintsville Lake to survey the shad population. A total of 3,288 shad were captured during this survey. The catch rate for Threadfin Shad was 164.2 fish/hr, while the Gizzard Shad catch rate was 201.1 fish/hr (Table 1). Most Threadfin Shad were in the 3-5 in classes (96.5%) while most Gizzard Shad were in the 5-7 in classes (95.9%; Figure 6). The majority of Threadfin Shad (61.9%) were collected in the mid-lake section, with the remainder of Threadfin Shad sampled in the lower-lake section (38.1%; Figure 7). No Threadfin Shad were observed in the upper-lake section in the 2025 spring electrofishing sample. The majority of Gizzard Shad collected in 2025 were in the upper-lake (55.0%) followed by the mid-lake (40.0%) and the lower-lake section (5.0%). Threadfin Shad made up roughly 45% of all shad sampled in spring 2025. An additional 50,000 Threadfin Shad were stocked on 19 May 2025 from American Sportfish Hatchery at the request of a local angler group funded by Johnson County Fiscal Court.

A supplemental shad sample was conducted on 11 March 2025 at Paintsville Lake, due to concerns of mortality after the February 2025 sample. However, dead shad were not observed after the February sample, and the coldest water temperatures recorded were before the 4 February 2025 sample. The sampling conditions were not optimal in March with clear water and no warming trend prior to the sample to bring shad near the surface of the lake or shallow water. Catch rates for Threadfin Shad and Gizzard Shad were both lower than the February sample and not believed to be a representative sample of the shad population (Tables 1-2). Few Threadfin Shad were sampled in the supplemental March sample, but the length frequency was similar to the February sample with 91.3% of fish in the 3-5 in classes (Figure 8). The length frequency for Gizzard Shad was also similar to the February sample with 86.5% of fish in the 5-7 in classes. Also, like the February sample, the majority of Threadfin Shad were collected in the mid-lake section, with some shad also sampled in the lower-lake section (Figure 9). Most Gizzard Shad collected in the supplemental March 2025 sample were in the lower-lake section followed by the mid-lake and the upper-lake section. This was a shift from the February sample where the majority of Gizzard Shad were sampled in the upper-lake section. This was likely due to the lower-lake section having some turbidity which led to an increase in Gizzard Shad catch rates, while the water in the upper-lake section was very clear in the supplemental March sample.

A total of 36 15-min runs were conducted on 19 and 25 February 2026 at Paintsville Lake with a total of 955 shad sampled. Many dead Threadfin Shad were observed along the banks and on the bottom of the lower-lake section during this sample. A few small dead Gizzard Shad were also observed in the mid-lake section. The Gizzard Shad catch rate was 106.1 fish/hr which was lower than the catch rate the previous two years (Table 1). No live Threadfin Shad were collected in the 2026 sample. Most Gizzard Shad were $\geq$8 in in the 2026 survey (81.4%; Figure 6). The majority of Gizzard Shad were collected in the lower-lake section (50.6%) followed by the mid-lake (38.8%) and the upper-lake section (10.6%; Figure 7).

Otolith Microchemistry

Otolith microchemistry was performed on Threadfin Shad collected in the Spring 2024 sample to test if a remnant population persisted in Paintsville Lake from the 1986-92 stockings. Threadfin Shad (n=40) were sent to Missouri State University for otolith microchemistry analysis. Fish sent off were between 3-5 in, which was the maximum size observed in the sample. Threadfin Shad (n=6) were also submitted from American Sportfish Hatchery as control fish (three fish from each hatchery that raises Threadfin Shad). All 40 fish analyzed from Paintsville Lake were age-1 and had a microchemistry signature that differed from American Sportfish hatchery which would indicate they were spawned in the lake and not stocked fish from 2023. However, based on 1) the low numbers of Threadfin Shad observed in the Spring 2024 sample, (2) no Threadfin Shad submitted for microchemistry analysis older than age-1, (3) the exponential growth of the Threadfin Shad population in 2025, and (4) no physical records of Threadfin Shad by EFD staff prior to 2023, it is viewed as highly unlikely there was a remnant Threadfin Shad population remaining in 2024 from the 1986-1992 KDFWR stockings.

Trawls

Neuston net trawls were conducted weekly from 10 May - 6 July, then every two weeks through 19 October 2023. The larval Gizzard Shad catch rate peaked in 2023 during the 1 June sample at a CPUE of 0.225/m^3 (Table 3 and Figure 10). Larval Threadfin Shad appeared during the 1 June trawl in low numbers with fish sampled throughout the summer in all samples. The highest numbers of Threadfin Shad were observed in mid-August through mid-September 2023. Larval sunfish had several peaks in 2023 with most fish being observed from 15 June - 20 July with a peak CPUE of 0.322/m^3 in the 15 June sample. Silversides were present in low abundance in samples from 24 May – 3 October 2023 with a peak CPUE of 0.027/m^3 during the 20 July sample.

Neuston net trawls were conducted monthly in 2024 on the first Tuesday of every month. The June sample was moved to Thursday 6 June due to thunderstorms, and the July sample was moved to

Tuesday 9 July due to a scheduling conflict. Larval Threadfin Shad were found in greater abundance than the previous year with a peak of 0.510 fish/m^3 in the 6 June trawl, but catch rates decreased in subsequent samples with only a handful of Threadfin Shad observed in the August and September samples (Table 4 and Figure 10). Gizzard Shad catch rates were drastically decreased in 2024 with the peak CPUE of 0.010 fish/m^3 being observed in the 6 June trawl. A minimal number of larval sunfish were collected in 2024 with most larval sunfish collected in the 6 June sample with a peak CPUE of 0.116/m^3. The number of sunfish sampled in July and August in 2024 was much lower than numbers observed in 2023. Larval silversides were present in low abundance in all months with a peak CPUE of 0.038/m^3 in the 9 July sample.

In 2025, neuston net trawls were conducted every two weeks from 15 May - 2 September. The larval Threadfin Shad CPUE peaked during the 2 June sample at 0.117/m^3 which was lower than that observed in 2024 during the same period (Table 5 and Figure 10). The larval Gizzard Shad CPUE was again low in 2025, peaking at 0.045/m^3 during the 15 May sample. The larval sunfish catch rate was the highest observed during the study with a peak catch rate of 0.848/m^3 during the 16 June sample and a high catch from 2 June - 6 July. This was similar to the peak sunfish period in the 2023 survey. Silversides were present in low abundance in all the months with a peak CPUE of 0.046/m^3 in the 30 June sample.

Fall Electrofishing

A total of 72 7.5-min runs were conducted on 18 September 2024 at Paintsville Lake to survey the shad population. A total of 2,078 shad were captured during this survey. The catch rate for Threadfin Shad was 88.8 fish/hr, while the Gizzard Shad catch rate was 142.1 fish/hr (Table 6). Most Threadfin Shad were in the 2-3 in classes (88.7%), while most Gizzard Shad were in the 6-7 in classes (71.9%; Figure 11). The majority of Threadfin Shad (73.8%) were collected in the upper-lake section, with the remaining 26.2% of Threadfin Shad collected in the lower-lake section (Figure 12). No Threadfin Shad were collected in the mid-lake section. The majority of Gizzard Shad were also collected in the upper-lake section (77.4%) followed by the lower-lake (20.3%) and the mid-lake section (2.3%). Threadfin Shad made up 38.5% of all shad sampled in the Fall 2024 survey. The 2024 fall electrofishing catch mirrored what was observed in the trawl data from 2024, with 2-3 in young-of-year Threadfin Shad abundant (several otoliths were extracted to confirm age-0) and very few age-0 Gizzard Shad observed (several otoliths were extracted to confirm fish were not age-0).

A total of 72 7.5-min runs were conducted on 2 October 2025 at Paintsville Lake to survey the shad population. A total of 1,785 shad were captured during this fall survey. The catch rate for Threadfin Shad was 116.4 fish/hr, while the Gizzard Shad catch rate was 80.4 fish/hr (Table 6). The vast majority of Threadfin Shad were in the 2-4 in classes (99.8%), while >65% of Gizzard Shad were ≥7 in (Figure 11). Distribution of Threadfin Shad in the Fall 2025 sample was split more evenly between lake sections with 37.5% of fish collected in the mid-lake section, 33.7% in the upper-lake, and 28.8% in the lower-lake section (Figure 12). The majority of Gizzard Shad were collected in the upper-lake (79.8%), followed by the lower-lake (19.1%) and mid-lake section (1.1%). Threadfin Shad made up 58.7% of all shad sampled in the Fall 2025 electrofishing survey.

Largemouth Bass Recruitment

Fall nocturnal electrofishing was conducted on 10 October 2023 to assess Largemouth Bass reproduction. The mean length of age-0 Largemouth Bass in 2023 was 4.4 in, with a catch rate of 14.0 fish/hr for age-0 fish (Table 7). The catch rate of age-0 Largemouth Bass ≥5.0 in was 3.2 fish/hr in 2023, which was the lowest catch rate observed since 2012. Spring electrofishing to assess Largemouth Bass recruitment was conducted on 21 April 2024 with a catch rate of 8.8 fish/hr for age-1 Largemouth Bass.

The fall nocturnal electrofishing survey to assess Largemouth Bass reproduction was conducted on 16 October 2024. The mean length of age-0 Largemouth Bass in 2024 was 4.4 in, with a catch rate of 2.9 fish/hr for age-0 fish (Table 7). The catch rate of age-0 Largemouth Bass ≥5.0 in was 0.6 fish/hr in 2024,

which followed the previous lowest CPUE observed in 2023, with another record low catch rate of age-0 ≥5.0 in. Spring electrofishing to assess Largemouth Bass recruitment was conducted on 5 May 2025 with a catch rate of 17.3 fish/hr for age-1 Largemouth Bass.

Fall nocturnal electrofishing was again conducted on 15 September 2025 to assess Largemouth Bass reproduction. The mean length of age-0 Largemouth Bass in 2025 was 4.3 in, with a catch rate of 49.2 fish/hr for age-0 fish (Table 7). The catch rate of age-0 Largemouth Bass ≥5.0 in was 10.4 fish/hr.

Largemouth Bass Relative Weights

Relative weight data for Largemouth Bass was also collected during fall nocturnal electrofishing surveys from 2022-25. Relative weights of Largemouth Bass in the ≥15.0 in length group have declined each year from a high of 98 in 2022 to 87 in 2025 (Table 8). Relative weights for Largemouth Bass in the 8.0 – 11.9 and 12.0 – 14.9 in length groups have remained stable in the low 80's and lower than desired. The average relative weight of Largemouth Bass in the 12.0 – 14.9 in length group did improve slightly in 2024 to 88 but decreased back to 83 in 2025. There has not been any observable sustained improvement to Largemouth Bass relative weights since the introduction of Threadfin Shad, with the average relative weight of bass ≥15.0 in decreasing in recent years. Unfortunately, relative weight data was not collected on Largemouth Bass prior to 2022 at Paintsville Lake.

Discussion

With the water temperatures observed at Paintsville Lake in early 2024 and early 2025, a winter kill of Threadfin Shad was expected in each year based on the previously published lab study. In both years there were periods below the 42.8°F threshold and extended periods below the 45.0°F threshold. However, Threadfin Shad persisted after each winter. Threadfin Shad appear to be more tolerant of cold temperatures than the literature suggests from the widely cited lab study; however, only to a point. We do know there is a lethal temperature threshold, as Threadfin Shad are not established in colder climates without thermal refuge. However, we can't say definitively if that lethal point is a low temperature threshold or an extended stress period from prolonged cold temperatures slightly above the minimum lethal temperature threshold. Our findings do suggest that the <42.8°F temperature that is widely circulated where Threadfin Shad exhibit high mortality may need refinement as we observed Threadfin Shad persisting in temperatures <40.0°F. Based on electrofishing surveys conducted in February of each year, Threadfin Shad either migrate out of the colder upper-lake section or succumb to the colder temperatures observed in this area of the lake. Threadfin Shad appear to migrate to the mid-lake section (above McKenzie Branch to the junction of Open Fork and Little Paint arms) during the winter months as indicated by February electrofishing samples where the mid-lake section holds the majority of Threadfin Shad collected. Threadfin Shad likely redistribute to the entire lake as water temperatures warm.

In the supplemental March 2025 electrofishing sample, Threadfin Shad were observed further up lake than in the February 2025 sample. In fall electrofishing surveys, Threadfin Shad were sampled up to the Patoker boat ramp in the upper reach of Paintsville Lake. In all three years of fish trawls (2023-25), larval Threadfin Shad were detected in the upper-lake samples. Due to the high abundance of Threadfin Shad observed in the mid-lake section in the February 2024 survey, an extra temperature logger was added to the Low Gap Fork area in 2025. Based on the 2025 temperature data, the Low Gap Fork logger did record slightly warmer temperatures compared to the Community Point temperature logger, which were both located in the mid-lake section. However, the water temperatures recorded at the Low Gap Fork logger location were still colder than temperatures recorded in the logger near the dam in the lower-lake section.

In early 2026, an extended cold spell dropped water temperatures below what was observed in 2024 and 2025. Dead Threadfin Shad were observed in the tailwater prior to sampling as well as in shoreline, rip rap, and leaf litter in the reservoir during the 2026 sample. In February 2026, Threadfin Shad were not detected during the electrofishing sample. It appears there is no longer a Threadfin Shad population

present, or numbers have been greatly reduced to the point where they were not detected with 9 hrs of electrofishing effort. If Threadfin Shad are not detected in 2026, the water temperatures observed in winter 2026 may provide a clearer picture of lethal temperature thresholds for Threadfin Shad. Neuston net trawls will be used in summer 2026 for larval Threadfin Shad surveillance. Additionally, fall electrofishing is planned to evaluate if Threadfin Shad are still present. If Threadfin Shad are not detected with any sampling gear in 2026, then it is good evidence that the population is highly reduced or completely extirpated. Additional monitoring of the shad population with electrofishing gear will occur during the spring and fall in 2027 and 2028. Additional stockings of Threadfin Shad during this evaluation period are not recommended as surveillance will continue to look for evidence of any small, remnant population of Threadfin Shad from recent stockings. If Threadfin Shad stockings continue beyond 2025, shad monitoring should be discontinued as it would preclude determining if Threadfin Shad are currently present in the lake and if they will become established long-term.

Threadfin Shad relative abundance increased year over year in spring and fall electrofishing samples until the spring 2026 survey. This increase in Threadfin Shad relative abundance is likely due to overwinter survival, successful spawns and continued stocking, increasing Threadfin Shad numbers in the lake.

In 2024 and 2025 peak Threadfin Shad spawning occurred in early June; however, meaningful prolonged spawning throughout the summer and early fall were not observed. This truncated spawning period was not what we observed in 2023 and is counter to the perceived benefit of an extended spawning period for Threadfin Shad. The peak catch rate of larval Threadfin Shad in 2025 was also much lower than in 2024, despite the high catch rate for adult Threadfin Shad in the February 2025 electrofishing sample.

Sunfish catch rates in the trawls appear to be inversely related to total shad production, with the highest catch rates for larval sunfish occurring in 2025. While production of sunfish was excellent in 2025, this doesn't necessarily translate to high sunfish recruitment. The literature suggests Threadfin Shad compete with other young-of-year fishes and may limit recruitment to adult sizes due to competition for zooplankton. This was a concern raised at the conclusion of a previous research study on Threadfin Shad effects on the White Crappie population at Rough River Lake and Dewey Lake in the early 1990's.

The shad composition has shifted in recent electrofishing samples at Paintsville Lake. While Threadfin Shad were detected in spring 2024, they did not make up a significant portion of the total shad population. During the Fall 2024 electrofishing survey, Threadfin Shad made up the majority of shad <5 in and almost 40% of the entire sample. In the Spring 2025 sample, Threadfin Shad again made up almost the entirety of shad <5 in and about 40% of the total shad sampled. In the fall 2025 sample, Threadfin Shad comprised nearly 60% of the total shad sampled. Declines in Gizzard Shad composition are likely due to the poor Gizzard Shad spawns observed in 2024 and 2025 in the trawls. There has been a significant decrease in the catch rate of Gizzard Shad in the 6.0 – 7.9 in length group in Fall 2025 and Spring 2026 as fish age out of this length group. Threadfin Shad may be negatively impacting Gizzard Shad spawning and recruitment due to competition for resources and appear to be replacing Gizzard Shad in the smaller size classes in recent years. A significant replacement of Gizzard Shad by Threadfin Shad, followed by a significant winter kill of the Threadfin Shad, could result in the collapse of the shad forage base utilized by Largemouth Bass.

The catch rate of age-0 Largemouth Bass in the fall electrofishing surveys of 2023, 2024, and 2025 were lower than any recorded in the 10 years before Threadfin Shad were stocked (2012-22). Threadfin Shad may be negatively impacting Largemouth Bass recruitment; however, additional environmental factors may also be impacting bass recruitment. Aquatic vegetation (Hydrilla, Brazilian Elodea, Long Leaf Pondweed, Eurasian Milfoil) has not been as abundant during fall sampling in Paintsville Lake during the last few years as it has been historically. This reduction in aquatic vegetation may have reduced bass recruitment as young bass were more susceptible to predation. With two consecutive years of low bass recruitment (2024-25) and a potential third year coming due to low catch rates of age-0 bass in fall 2025, the catch rate of bass <12 in will likely be reduced in 2026 and beyond.

The main focus of the Threadfin Shad stockings at Paintsville Lake was to improve growth and condition of Largemouth Bass in the 8.0 – 11.9 in length group. However, the highest relative weight observed for the 8.0 – 11.9 in length group was in 2022 prior to the Threadfin Shad being stocked. Aside from a slight increase in the average relative weight for bass in the 12.0 – 14.9 in length group in 2024, the 2022 relative weights were higher than any other year across all length groups. It is concerning that relative weights have not improved despite reduced Largemouth Bass recruitment across the last few years. The consistent drop in the average relative weight of Largemouth Bass in the ≥15.0 in length group across all years is also concerning.

A lack of improvements to relative weights in Largemouth Bass may be due to several potential causes. There are potentially limited interactions between the Largemouth Bass and Threadfin Shad on a population level with Largemouth Bass mostly residing in littoral areas (shallow water areas where sunlight reaches the bottom of the lake) versus Threadfin Shad residing in more pelagic areas (open water away from shore), effectively causing Threadfin Shad to be unused forage for Largemouth Bass. The bioenergetic load needed for Largemouth Bass to constantly pursue Threadfin Shad in a highland impoundment like Paintsville Lake may outweigh the benefit of having high numbers of Threadfin Shad available. This constant pursuit of Threadfin Shad could cause a caloric deficit vs pursuing larger forage. Over time, Threadfin Shad may reduce littoral-oriented forage such as Gizzard Shad and sunfish as they compete for the same resources.

Several bordering states on the northern range of Threadfin Shad have expressed concerns and observed significant declines in sportfish populations after Threadfin Shad winter die-offs left little remaining available forage for sportfish. As Threadfin Shad replace the niche of other more cold-tolerant forage fishes the effects of a significant winterkill like that experienced in 2026 could negatively impact the very species they were stocked to benefit.

Table 1. Spring electrofishing catch rate (CPUE) by length group for Threadfin Shad and Gizzard Shad at Paintsville Lake in February 2024-26 samples. Standard errors in parentheses.

	Length group (in)					
Year	<2.0	2.0-3.9	4.0-5.9	6.0-7.9	≥8.0	Total
Threadfin Shad						
2024	0.0 (0.0)	2.0 (1.4)	15.5 (8.9)	0.0 (0.0)	0.0 (0.0)	17.5 (10.1)
2025	0.0 (0.0)	55.6 (43.0)	108.7 (76.0)	0.0 (0.0)	0.0 (0.0)	164.2 (103.6)
2026	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
Gizzard Shad						
2024	0.0 (0.0)	0.7 (0.3)	44.0 (19.8)	112.3 (48.9)	3.5 (1.5)	171.9 (62.0)
2025	0.0 (0.0)	1.0 (0.4)	34.7 (8.6)	161.2 (43.4)	4.1 (1.5)	201.1 (50.5)
2026	0.0 (0.0)	0.0 (0.0)	7.0 (5.4)	12.7 (11.6)	86.4 (75.7)	106.1 (82.5)

Table 2. Spring electrofishing catch rate (CPUE) by length group for Threadfin and Gizzard Shad at Paintsville Lake from supplemental 11 March 2025 sample. Standard errors in parentheses.

	Length group (in)					
Year	<2.0	2.0-3.9	4.0-5.9	6.0-7.9	≥8.0	Total
Threadfin Shad						
2025	0.0 (0.0)	2.0 (0.6)	3.0 (1.0)	0.1 (0.1)	0.0 (0.0)	5.1 (1.4)
Gizzard Shad						
2025	0.0 (0.0)	0.1 (0.1)	11.0 (3.7)	84.0 (17.3)	16.0 (2.3)	111.1 (21.3)

Table 3. Number of larval Gizzard Shad, Threadfin Shad, Sunfish, and Silversides and CPUE (fish/m^3) collected with a 1000M neuston net on Paintsville Lake in 2023. Number of fish and volume of water for each date is the total combined sample from three lake sections (upper, middle and lower) and two samples from each lake section (six total samples).

Sample Date	Water Volume (m^3)	Number of Gizzard Shad	Gizzard Shad CPUE	Number of Threadfin Shad	Threadfin Shad CPUE	Number of Sunfish	Sunfish CPUE	Number of Silversides	Silversides CPUE
5/10/2023	2105.6	1	0.000	0	0.000	0	0.000	0	0.000
5/18/2023	2984.9	22	0.007	0	0.000	0	0.000	0	0.000
5/24/2023	2995.8	125	0.042	0	0.000	6	0.002	7	0.002
6/1/2023	3173.6	713	0.225	27	0.009	568	0.179	25	0.008
6/8/2023	3026.2	188	0.062	7	0.002	242	0.080	22	0.007
6/15/2023	3107.8	237	0.076	20	0.006	1000	0.322	42	0.014
6/21/2023	3079.0	191	0.062	18	0.006	789	0.256	41	0.013
6/29/2023	3051.2	25	0.008	11	0.004	948	0.311	43	0.014
7/6/2023	3074.0	28	0.009	15	0.005	504	0.164	60	0.020
7/20/2023	3045.2	17	0.006	13	0.004	567	0.186	83	0.027
8/2/2023	3121.8	7	0.002	9	0.003	139	0.045	41	0.013
8/17/2023	3010.8	2	0.001	54	0.018	130	0.043	55	0.018
8/31/2023	3093.0	0	0.000	65	0.021	11	0.004	17	0.005
9/14/2023	3098.4	0	0.000	60	0.019	0	0.000	25	0.008
10/3/2023	3099.4	0	0.000	17	0.005	0	0.000	2	0.001
10/19/2023	3113.0	0	0.000	2	0.001	0	0.000	0	0.000

Table 4. Number of larval Gizzard Shad, Threadfin Shad, Sunfish, and Silversides and CPUE (fish/m^3) collected with a 1000M neuston net on Paintsville Lake in 2024. Number of fish and volume of water for each date is the total combined sample from three lake sections (upper, middle and lower) and two samples from each lake section (six total samples).

Sample Date	Water Volume (m^3)	Number of Gizzard Shad	Gizzard Shad CPUE	Number of Threadfin Shad	Threadfin Shad CPUE	Number of Sunfish	Sunfish CPUE	Number of Silversides	Silversides CPUE
6/6/2024	3028.2	29	0.010	1545	0.510	352	0.116	23	0.008
7/9/2024	3510.4	10	0.003	149	0.042	11	0.003	132	0.038
8/6/2024	2953.8	0	0.000	5	0.002	3	0.001	28	0.009
9/3/2024	2998.6	0	0.000	2	0.001	6	0.002	33	0.011

Table 5. Number of larval Gizzard Shad, Threadfin Shad, Sunfish, and Silversides and CPUE (fish/m^3) collected with a 1000M neuston net on Paintsville Lake in 2025. Number of fish and volume of water for each date is the total combined sample from three lake sections (upper, middle and lower) and two samples from each lake section (six total samples).

Sample Date	Water Volume (m^3)	Number of Gizzard Shad	Gizzard Shad CPUE	Number of Threadfin Shad	Threadfin Shad CPUE	Number of Sunfish	Sunfish CPUE	Number of Silversides	Silversides CPUE
5/15/2025	3043.4	136	0.045	175	0.058	56	0.018	2	0.001
6/2/2025	2980.4	94	0.032	350	0.117	429	0.144	59	0.020
6/16/2025	2894.6	25	0.009	116	0.040	2454	0.848	56	0.019
6/30/2025	2933.6	3	0.001	32	0.011	697	0.238	134	0.046
7/6/2025	2907.0	4	0.001	8	0.003	1100	0.378	112	0.039
7/21/2025	3020.9	0	0.000	49	0.016	126	0.042	74	0.024
8/4/2025	2925.4	0	0.000	29	0.010	48	0.016	74	0.025
8/18/2025	3190.0	0	0.000	14	0.004	29	0.009	106	0.033
9/2/2025	2941.4	0	0.000	19	0.006	4	0.001	31	0.011

Table 6. Fall catch rate (CPUE) by length group for Threadfin Shad and Gizzard Shad in 9.0 hrs electrofishing (7.5-min runs) at Paintsville Lake in 2024-25. Standard errors in parentheses.

	Length group (in)					
Year	<2.0	2.0-3.9	4.0-5.9	6.0-7.9	≥8.0	Total
Threadfin Shad						
2024	3.1 (2.2)	78.8 (30.5)	6.9 (3.4)	0.0 (0.0)	0.0 (0.0)	88.8 (31.8)
2025	3.1 (3.1)	79.8 (25.5)	33.4 (14.1)	0.1 (0.1)	0.0 (0.0)	116.4 (33.0)
Gizzard Shad						
2024	0.0 (0.0)	0.3 (0.3)	18.2 (7.2)	102.2 (22.8)	21.3 (3.7)	142.1 (28.0)
2025	0.0 (0.0)	13.9 (8.9)	12.0 (5.8)	17.9 (4.7)	36.7 (6.8)	80.4 (18.1)

Table 7. Indices of year class strength at age-0 and age-1 and mean length (in) for Largemouth Bass collected by nocturnal electrofishing at Paintsville Lake from 2012-2025.

	Age-0		Age-0		Age-0 ≥5.0 in		Age-1	
Year Class	Mean Length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2012	5.0	0.1	58.1	10.6	32.3	7.3	64.9	5.0
2013	4.9	0.0	111.7	13.8	53.1	5.0	63.7	8.3
2014	4.8	0.1	60.0	11.0	27.0	7.3	90.7	7.4
2015	4.9	0.1	95.1	17.7	42.2	6.7	71.2	5.6
2016	5.0	0.1	70.0	6.3	34.0	8.6	39.2	6.1
2017	5.0	0.1	125.2	20.2	62.4	12.9	56.6	14.6
2018	4.6	0.1	50.9	9.8	22.9	7.8	42.9	15.9
2019	4.4	0.1	74.7	9.3	25.3	4.5	no sample	
2020	3.3	0.1	71.2	13.9	6.0	4.3	24.0	8.3
2021	4.5	0.1	81.8	30.0	26.7	7.6	21.6	5.0
2022	4.9	0.1	106.0	22.5	52.0	16.6	34.0	10.7
2023	4.4	0.1	14.0	2.5	3.2	1.2	8.8	1.9
2024	4.4	0.1	2.9	0.5	0.6	0.2	17.3	2.4
2025	4.3	0.1	49.2	5.8	10.4	1.2		

Table 8. Number of fish and the mean relative weight (Wr) for each length group of Largemouth Bass collected in fall electrofishing samples at Paintsville Lake from 2022-25. Standard errors are in parentheses.

	Length group (in)					
Year	8.0-11.9		12.0-14.9		≥15.0	
	No.	Wr	No.	Wr	No.	Wr
2022	116	85 (3)	24	84 (2)	18	98 (2)
2023	142	77 (0)	14	83 (2)	10	96 (3)
2024	102	82 (1)	42	88 (2)	13	92 (3)
2025	103	83 (1)	65	83 (1)	19	87 (1)

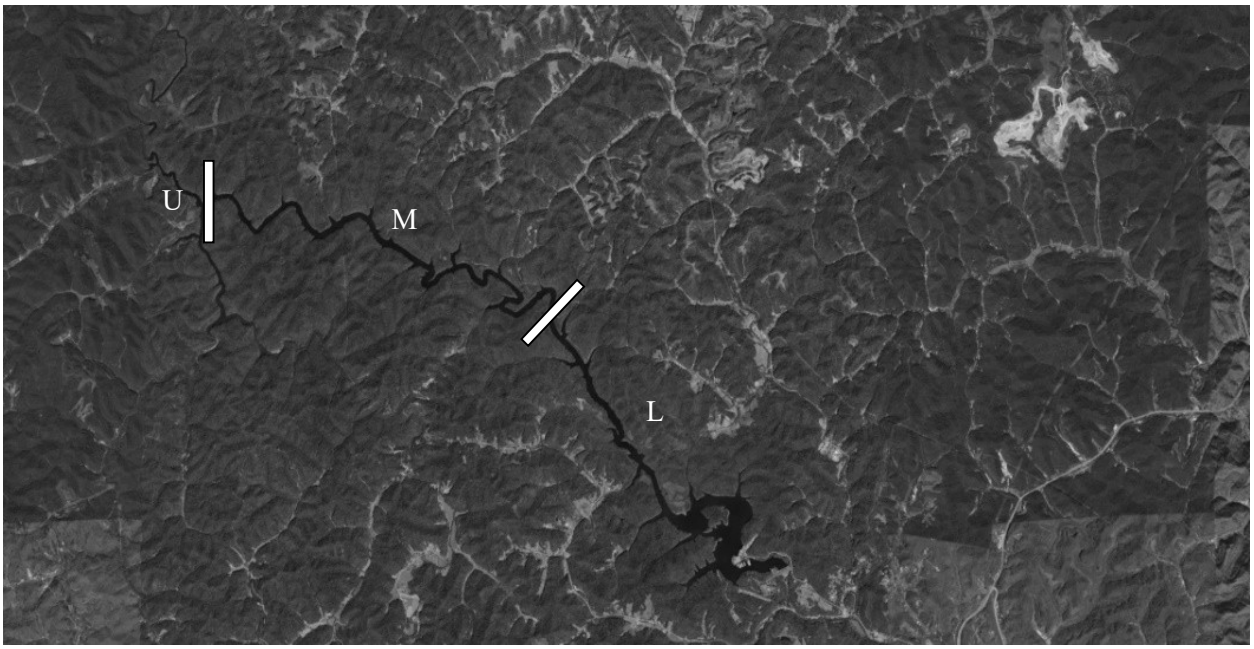

Figure 1. Map of Paintsville Lake electrofishing and trawl sampling by section with U, M, and L representing upper, middle, and lower lake sections respectively.

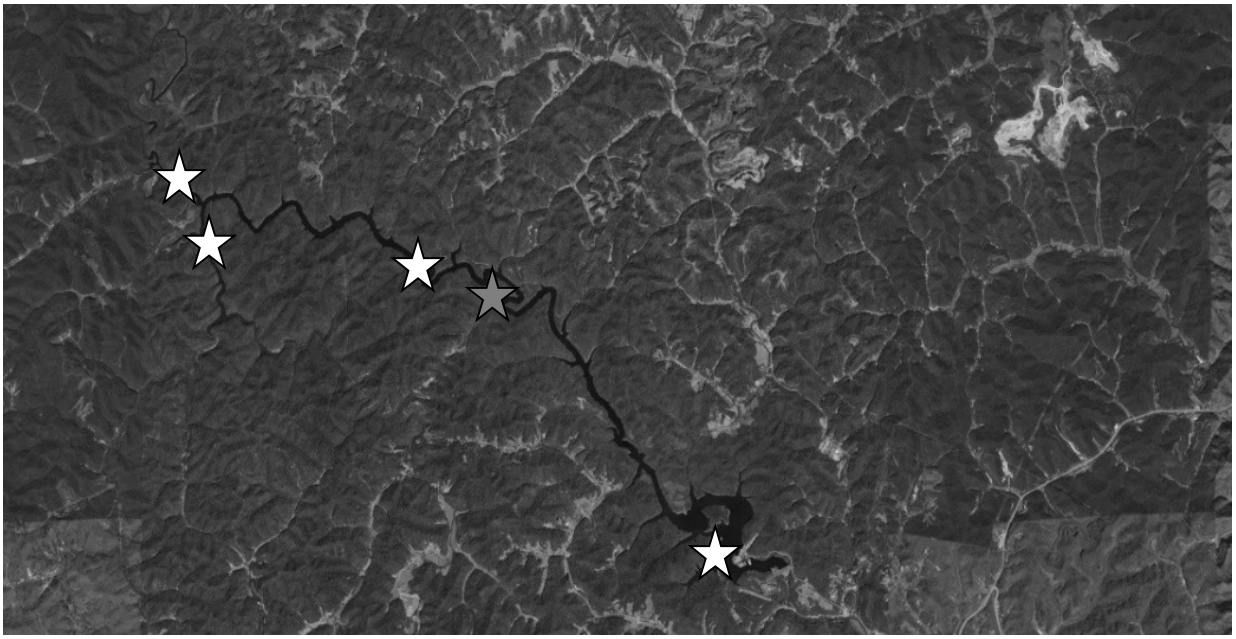
Figure 2. Map of Paintsville Lake temperature logger locations. White stars are locations where temperature loggers were placed in 2024. White and grey stars are temperature logger locations in 2025 and 2026.

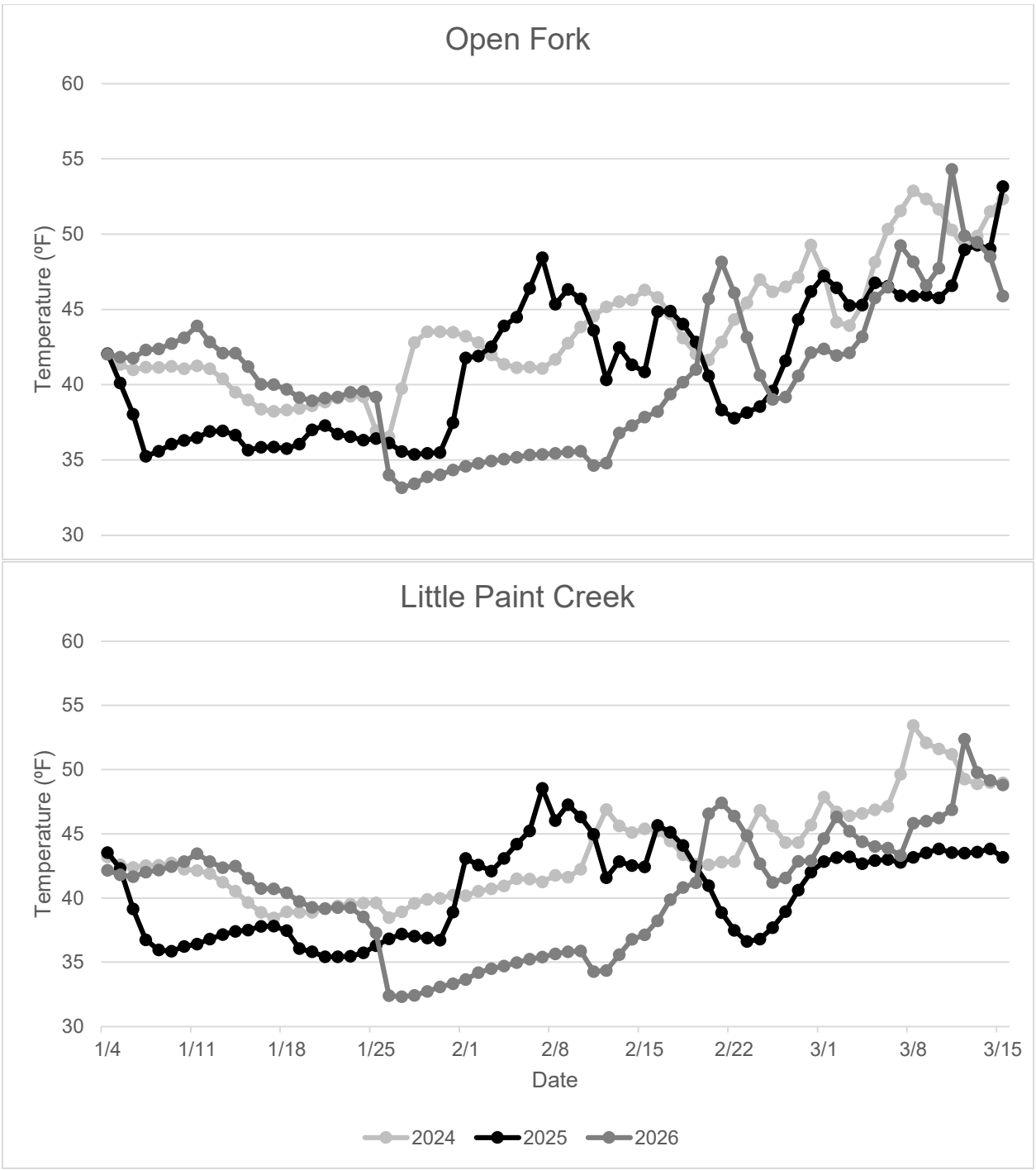

Figure 3. Average Daily Temperature (°F) profiles at upper-lake logger locations on Paintsville Lake from 4 January - 15 March 2024, 2025, and 2026.

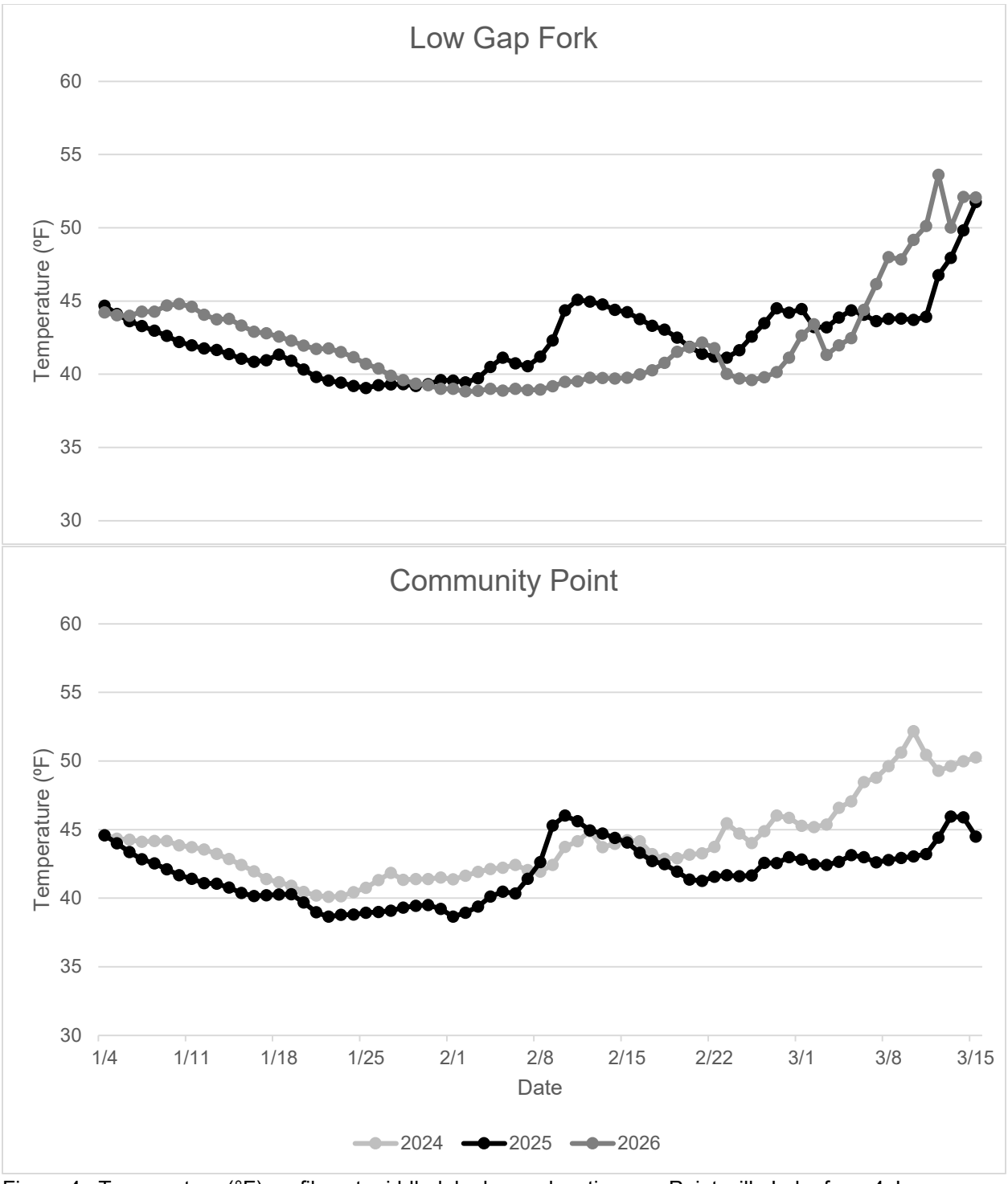

Figure 4. Temperature (°F) profiles at middle-lake logger locations on Paintsville Lake from 4 January - 15 March 2024, 2025, and 2026. Low Gap Fork did not have a temperature logger deployed in 2024. Community Point had no temperature data recorded in 2026 due to logger malfunction.

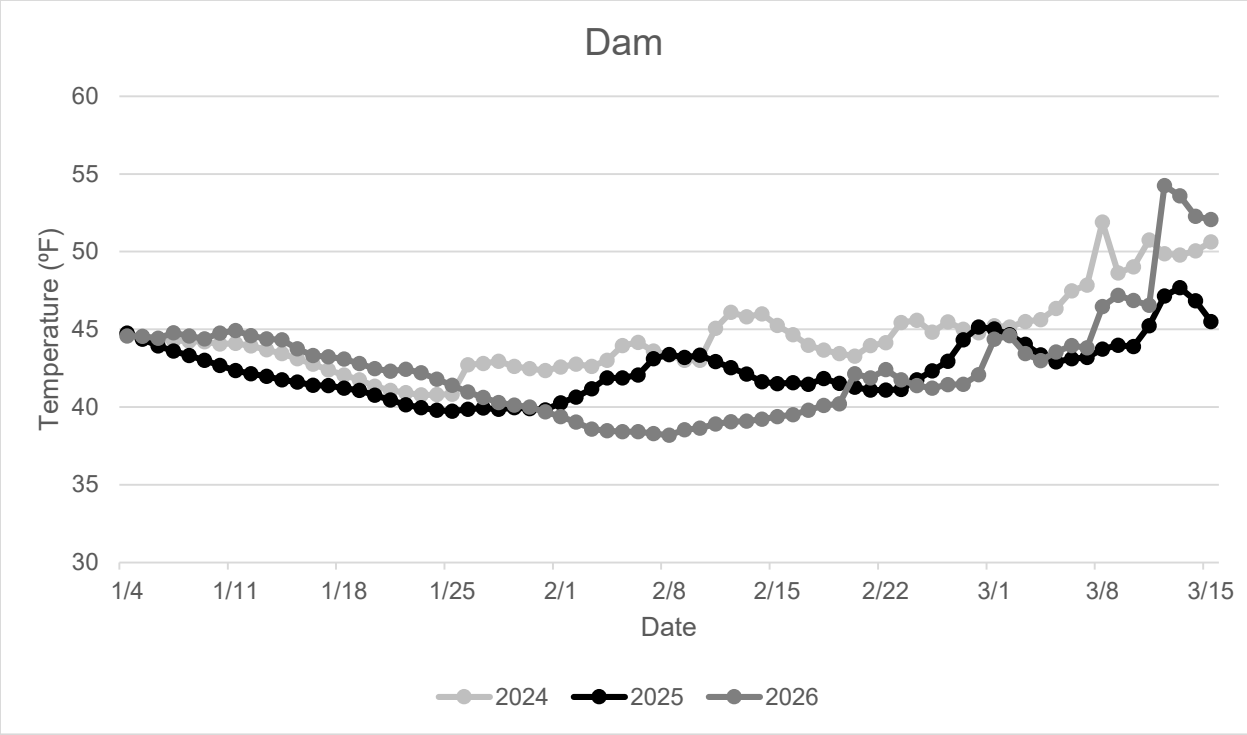

Figure 5. Temperature (°F) profiles at lower-lake logger location on Paintsville Lake from 4 January - 15 March 2024, 2025, and 2026.

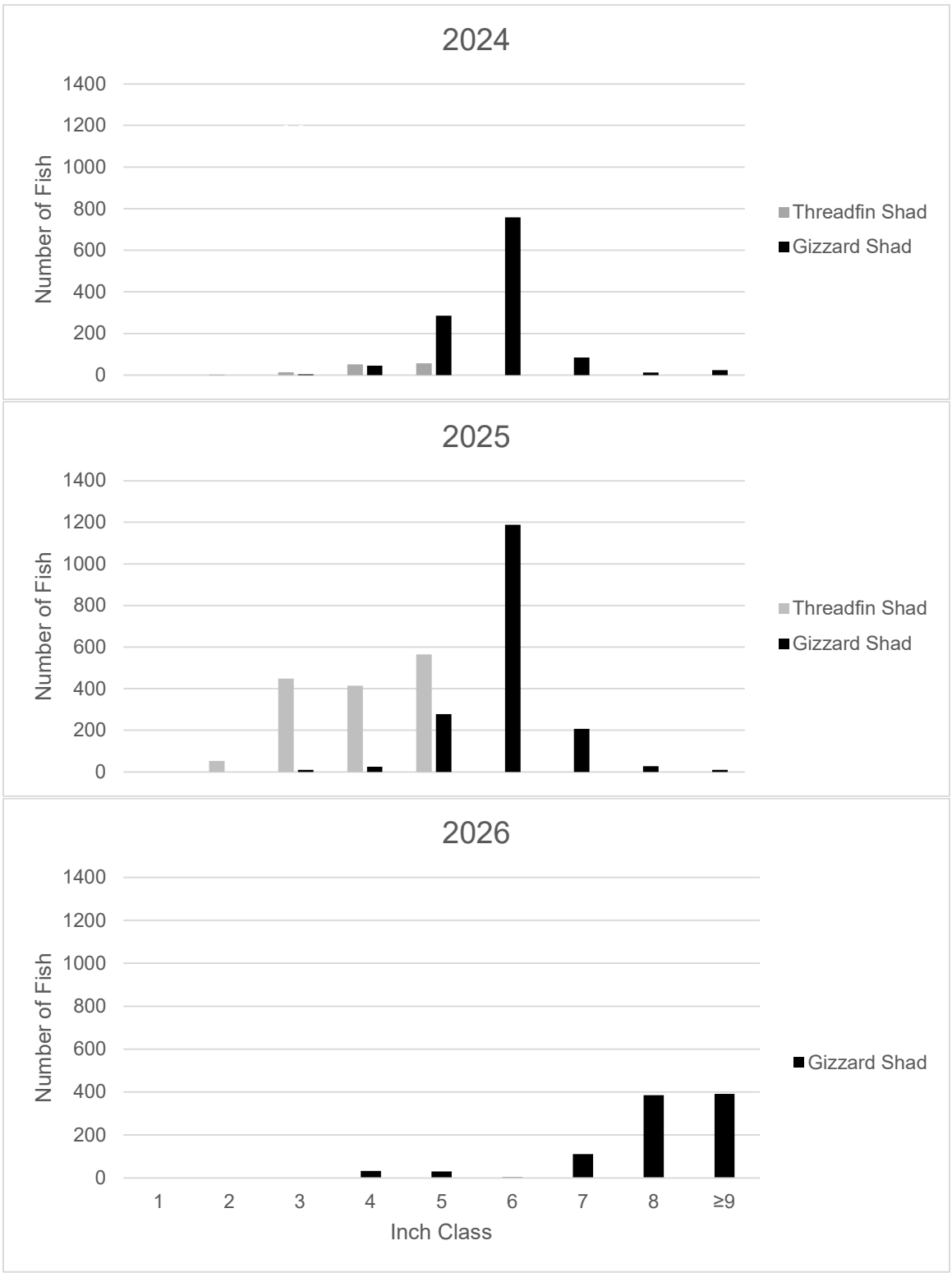

Figure 6. Length frequency of Threadfin Shad and Gizzard Shad collected in spring electrofishing samples at Paintsville Lake in February 2024-26. The 2024 sample consisted of 7.5 hrs of effort while the 2025-26 sample consisted of 9.0 hrs of electrofishing effort.

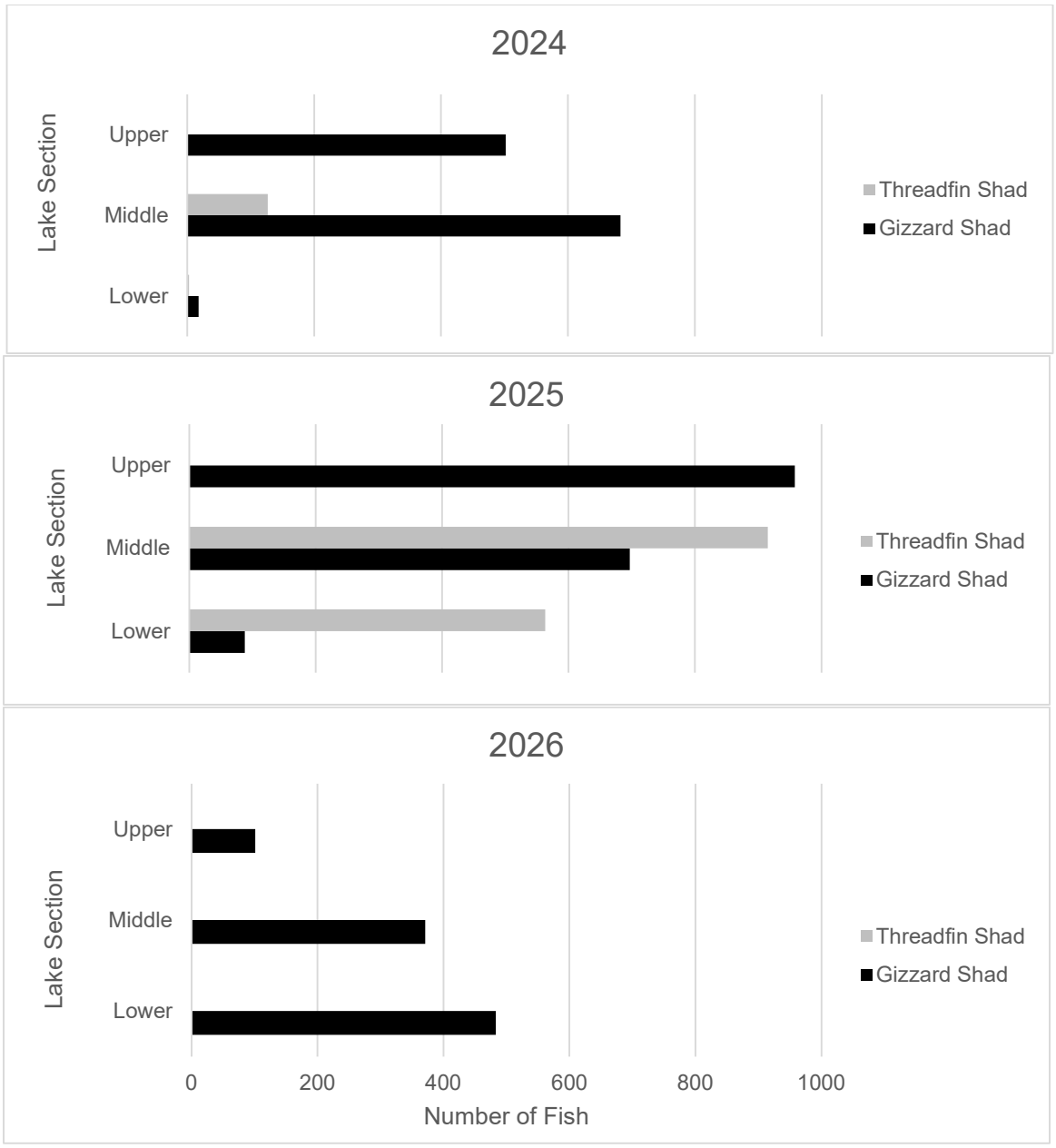

Figure 7. Number of Threadfin Shad and Gizzard Shad by lake section collected in spring electrofishing samples at Paintsville Lake in February 2024-26. The 2024 sample consisted of 7.5 hrs of effort while the 2025-26 sample consisted of 9.0 hrs of electrofishing effort.

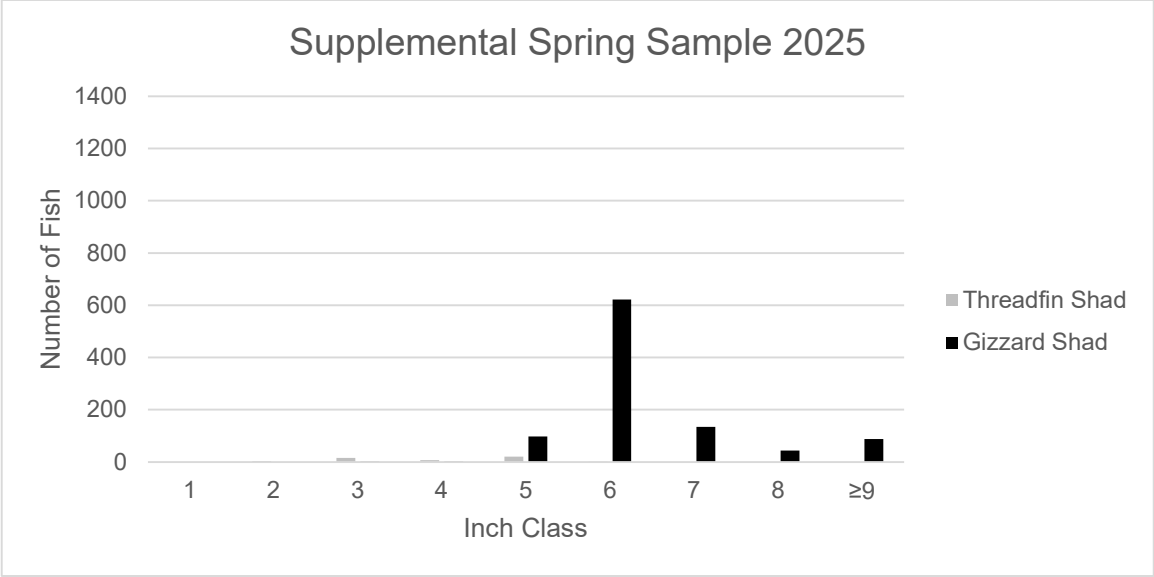

Figure 8. Length frequency of Threadfin Shad and Gizzard Shad collected in supplemental spring electrofishing sample (9.0 hrs of effort) at Paintsville Lake on 11 March 2025.

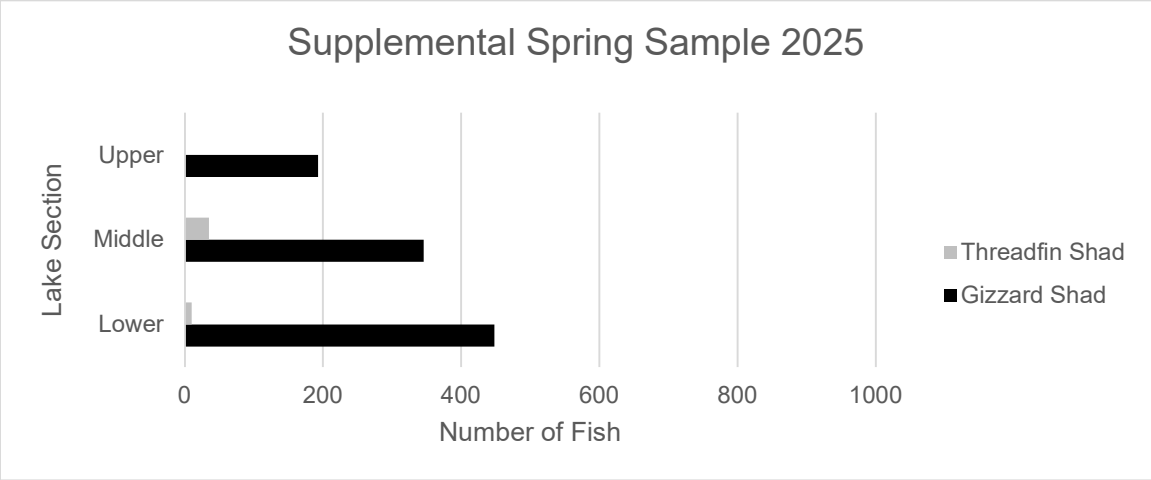

Figure 9. Number of Threadfin Shad and Gizzard Shad by lake section collected in supplemental spring electrofishing sample at Paintsville Lake on 11 March 2025 with 9.0 hrs of effort.

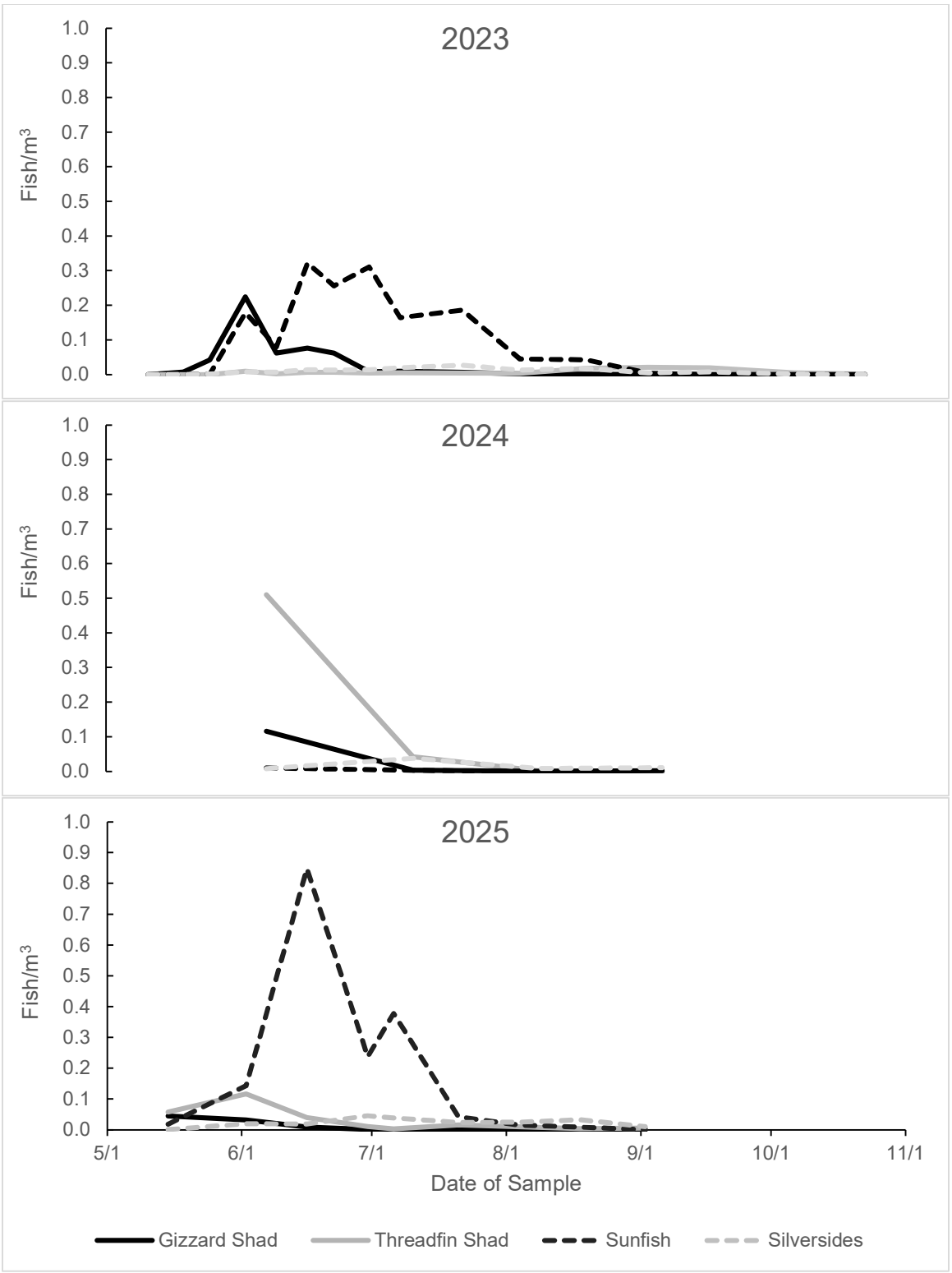

Figure 10. Catch rate (fish/m^3) of larval Gizzard Shad, Threadfin Shad, Sunfish, and Silversides collected trawling with a 1000M neuston net at Paintsville Lake from 2023-25.

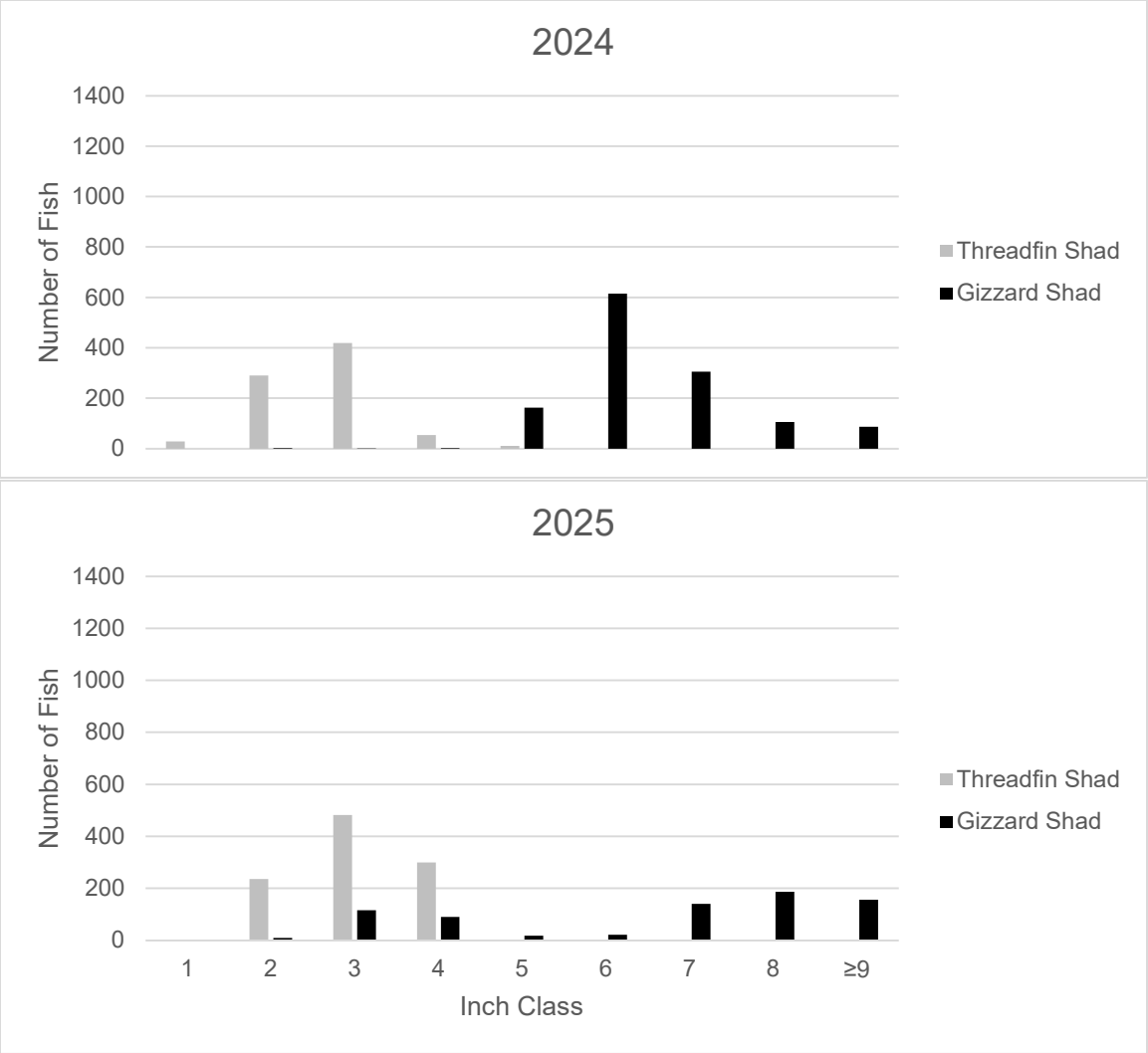

Figure 11. Length frequency of Threadfin Shad and Gizzard Shad collected in 9.0 hrs of fall electrofishing (7.5-min runs) at Paintsville Lake in 2024-25.

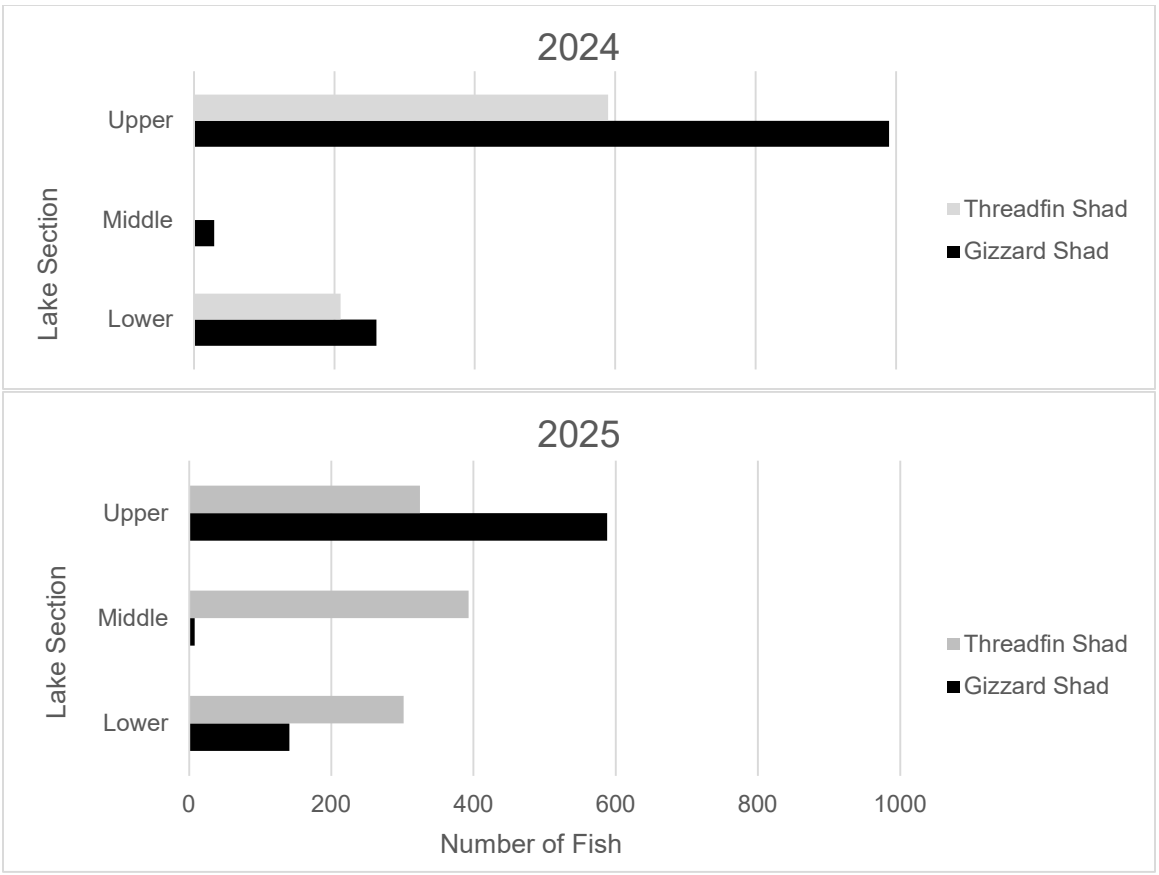

Figure 12. Number of Threadfin Shad and Gizzard Shad by lake section collected in 9.0 hrs of fall electrofishing (7.5-min runs) at Paintsville Lake in 2024-25.

Project III: Evaluation of Threadfin Shad Stockings and Overwinter Survival in Kentucky Reservoirs

Section II: Statewide Survey for the Presence of Threadfin Shad

FINDINGS

The objective of this study is to use electrofishing sampling to verify presence/absence of Threadfin Shad and other clupeids in all impoundments >500 acres in Kentucky. From 1957-1996, all impoundments >500 acres in Kentucky except Yatesville Lake and Cedar Creek Lake (built in 2002) were stocked with Threadfin Shad (Table 1). Prior to this study, there were several lakes in Kentucky that had known, abundant populations of Threadfin Shad and it is assumed that those populations resulted from these previous stocking efforts and not angler introductions. These impoundments included Dale Hollow Lake, Herrington Lake, Kentucky Lake, Lake Barkley, Lake Cumberland, and Laurel River Lake. In addition, Threadfin Shad were detected in Green River Lake in 2023. Threadfin Shad are not a species monitored in standardized sampling conducted by district staff and therefore current statewide distribution is unknown.

For impoundments >1,000 acres 72 7.5-min runs of electrofishing effort were used to sample the shad population, while waterbodies <1,000 acres had 40 7.5-minute runs of effort. Targeted shad sampling occurred during the months of February through May. Runs were comprised of a mixture of shoreline and offshore sites due to shad being a pelagic species and were spatially separated to cover each section of the lake. After each run shad were identified and if Threadfin Shad were detected the survey could stop since presence was confirmed.

A distribution map of Threadfin Shad in impoundments >500 acres in Kentucky can be found in Figure 1. Targeted spring electrofishing for shad occurred on Barren River Lake, Dewey Lake, and Taylorsville Lake in 2024 (Table 2). Threadfin Shad were quickly detected in Barren River Lake with limited sampling needed. Only Gizzard Shad were sampled in Dewey Lake and Taylorsville Lake in 2024. The catch rate of Gizzard Shad at Dewey Lake was 430.0 fish/hr with an average size of 5-8 in. The catch rate of Gizzard Shad on Taylorsville Lake was 1,000.6 fish/hr with an average size of 3-7 in. In 2025, only Gizzard Shad were sampled in the following lakes, Yatesville Lake (433.8 fish/hr), Wood Creek Lake (55.2 fish/hr), Lake Beshear (103.6 fish/hr) and Lake Malone (204.4 fish/hr). Gizzard Shad average size varied by lake and was 3-5 in at Yatesville Lake, 8-10 in at Wood Creek Lake, 6-10 in at Lake Beshear, and 7-8 in at Lake Malone. In 2026, Cave Run Lake and Rough River Lake were surveyed in March. Only Gizzard Shad were sampled in Cave Run Lake (61.4 fish/hr) and their size was evenly distributed through all size classes. Catch rates of Gizzard Shad were much lower at Cave Run Lake compared to other lakes surveyed, potentially due to a winterkill of Gizzard Shad observed during 2026. Only Gizzard Shad were observed in Rough River Lake in 2026 (636.0 fish/hr), with most shad in the 3-4 in classes. Many dead Gizzard Shad were observed along the shoreline of Rough River Lake during the shad sample and had likely recently perished from an extended cold period. Carr Creek Lake will be sampled later in 2026. The last of the remaining impoundments >500 will be surveyed in 2027 and include Buckhorn Lake, Cedar Creek Lake, Fishtrap Lake, and Grayson Lake.

Threadfin Shad were observed into the early 2000's in electrofishing surveys at Barren River Lake, so the confirmed presence in 2024 was not unexpected. Threadfin Shad were documented in Nolin River Lake and tailwater after a winterkill in February 2026. Dead Threadfin Shad had been reported in the Nolin River Lake tailwater in previous winters and were suspected to be coming through the dam after winter die-offs. All the other lakes surveyed for Threadfin Shad where status was unknown only revealed Gizzard Shad populations.

Gizzard Shad relative abundance was lower on impoundments <1,000 acres compared to impoundments >1,000 acres (Table 2). Shad catch rates appear to be correlated to the trophic level of the impoundment as determined by the Trophic System Index (TSI). The TSI value is based on total phosphorus, chlorophyll-a, and secchi depth to create a TSI value which correlates to certain trophic status and ranges

from 0-100. Using values provided by USACE and Kentucky Division of Water, larger oligotrophic lakes like Paintsville Lake (30 TSI) and Yatesville Lake (36 TSI), have lower shad catch rates on average than comparable mesotrophic lakes like Dewey Lake (44 TSI). Similarly, mesotrophic lakes had lower shad catch rates than eutrophic lakes such as Taylorsville Lake (62 TSI) and Rough River Lake (60 TSI). However, Cave Run Lake (47 TSI) didn't fit this trend and it may be due to a Gizzard Shad winterkill occurring prior to the sample. Wood Creek Lake (51 TSI), Lake Beshear (54 TSI) and Lake Malone (56 TSI) are all considered eutrophic, and shad catch rates increased with higher TSI scores; however, all these impoundments had lower catch rates than the larger reservoirs. No impoundment surveyed in Kentucky <5,000 acres had a Threadfin Shad population present from prior introductions (30+ years ago) without a thermal refuge present. Cave Run Lake is >5,000 acres, but doesn't have a Threadfin Shad population present, likely due to the geographic location in the northern part of the state and not possessing a thermal refuge.

There have been a few small impoundments where Threadfin Shad were collected in recent years, including Benjy Kinman Lake and Waymond Morris Park Lake, as a result of introductions from flooding of nearby river systems. It is likely these populations will only be temporary and will experience a winter kill at some point. Further monitoring at Benjy Kinman Lake in March 2026 and Waymond Morris Park during sportfish sampling confirmed Threadfin Shad were no longer present.

While Threadfin Shad populations were not detected in most impoundments surveyed despite previous stockings from 1957-96, multi-year survival of Threadfin Shad after a stocking may be possible and brings along both pros and cons. Survival and reproduction of stocked Threadfin Shad allow for greater impact to the fishery as more Threadfin Shad will be in the system than stocking alone can provide. This would allow for years between stocking events to replenish a Threadfin Shad population from a winterkill. However, if negative impacts are observed on the fishery, there may be no way to remove Threadfin Shad from the system if winter kills do not remove the entire population. These lakes could potentially see a buildup of Threadfin Shad populations during several years of mild winters and then a massive die off with a severe winter. This could potentially lead to collapses in forage bases if Threadfin Shad fill the niche of more cold tolerant forage species, then experience a significant winterkill. Therefore, lake managers should use caution with Threadfin Shad introductions into previously stocked or new impoundments in Kentucky. Checking water temperature profiles for several years prior to introduction may provide insight on suitability for Threadfin Shad to survive in the impoundment after stocking.

Table 1. Threadfin Shad stockings in Kentucky from 1957-96.

Lake	Year	Number of Fish
Lake Cumberland	1957	300
Dewey Lake	1959	400
Herrington Lake	1959	525
Buckhorn Lake	1962	305
Dewey Lake	1962	250
Buckhorn Lake	1964	834
Dewey Lake	1964	85
Nolin River Lake	1964	592
Rough River Lake	1964	141
Barren River Lake	1965	1,500
Dewey Lake	1965	1,467
Herrington Lake	1965	362
Rough River Lake	1965	1,000
Barren River Lake	1966	1,672
Buckhorn Lake	1966	388
Dewey Lake	1966	1,881
Herrington Lake	1966	582
Lake Malone	1966	700
Rough River Lake	1966	463
Buckhorn Lake	1967	5,000
Dewey Lake	1967	5,000
Herrington Lake	1967	5,000
Lake Malone	1967	5,000
Nolin River Lake	1967	2,500
Old Kingfisher Lake	1967	5,000
Buckhorn Lake	1968	100
Lake Malone	1968	2,000
Nolin River Lake	1968	1,200
Buckhorn Lake	1969	2,000
Lake Malone	1969	2,000
Buckhorn Lake	1971	5,000
Fishtrap Lake	1971	5,000
Grayson Lake	1971	4,000
Green River Lake	1971	10,000
Green River Lake	1972	10,000
Lake Ellerslie	1972	5,000
Buckhorn Lake	1973	14,000
Green River Lake	1973	13,000
Wood Creek Lake	1973	4,000

Table 1. Continued.

Lake	Year	Number of Fish
Buckhorn Lake	1974	8,000
Cave Run Lake	1974	4,000
Laurel River Lake	1974	4,000
Nolin River Lake	1974	3,000
Rough River Lake	1974	5,000
Buckhorn Lake	1975	8,000
Cave Run Lake	1975	6,000
Nolin River Lake	1975	3,000
Rough River Lake	1975	5,000
Wood Creek Lake	1975	3,000
Buckhorn Lake	1976	23,000
Cave Run Lake	1976	24,000
Fishtrap Lake	1976	5,000
Nolin River Lake	1976	14,000
Rough River Lake	1976	13,000
Wood Creek Lake	1976	3,000
Laurel River Lake	1979	10,000
Buckhorn Lake	1981	10,000
Fishpond Lake	1981	5,000
Grayson Lake	1981	10,000
Lake Cumberland	1981	10,000
Lake Malone	1981	5,000
Laurel River Lake	1981	15,000
Wood Creek Lake	1981	5,000
Lake Beshear	1982	1,425
Buckhorn Lake	1986	7,000
Laurel River Lake	1986	27,000
Paintsville Lake	1986	10,000
Taylorsville Lake	1986	22,000
Wood Creek Lake	1986	4,000
Buckhorn Lake	1987	10,000
Cave Run Lake	1987	43,000
Cranks Creek Lake	1987	3,000
Dale Hollow Lake	1987	35,000
Fishtrap Lake	1987	25,000
Peabody WMA Lakes	1987	40,000
Grayson Lake	1987	3,000
Laurel River Lake	1987	22,500
Nolin River Lake	1987	50,000

Table 1. Continued.

Lake	Year	Number of Fish
Paintsville Lake	1987	8,000
Taylorsville Lake	1987	65,000
Wood Creek Lake	1987	7,500
Lake Beshear	1988	2,000
Buckhorn Lake	1988	2,000
Carr Fork Lake	1988	3,000
Cave Run Lake	1988	26,000
Dale Hollow Lake	1988	15,100
Fishtrap Lake	1988	4,500
Frankfort Hatchery	1988	200
Grayson Lake	1988	9,000
Laurel River Lake	1988	15,000
Martins Fork Lake	1988	1,500
Nolin River Lake	1988	35,000
Paintsville Lake	1988	4,500
Taylorsville Lake	1988	25,000
Wood Creek Lake	1988	3,000
Lake Beshear	1989	2,500
Buckhorn Lake	1989	5,000
Carr Fork Lake	1989	3,000
Cave Run Lake	1989	35,000
Dale Hollow Lake	1989	15,000
Fishtrap Lake	1989	5,000
Frankfort Hatchery	1989	1,000
Martins Fork Lake	1989	1,500
Nolin River Lake	1989	30,000
Paintsville Lake	1989	5,000
Peabody WMA Lakes	1989	25,000
Taylorsville Lake	1989	30,800
Wood Creek Lake	1989	5,000
Lake Beshear	1990	5,000
Buckhorn Lake	1990	12,000
Cannon Creek Lake	1990	2,000
Carr Fork Lake	1990	7,500
Cave Run Lake	1990	58,000
Cranks Creek Lake	1990	2,200
Dale Hollow Lake	1990	30,000
Fishtrap Lake	1990	12,000

Table 1. Continued.

Lake	Year	Number of Fish
Laurel River Lake	1990	21,000
Martins Fork Lake	1990	3,400
Nolin River Lake	1990	25,000
Paintsville Lake	1990	12,000
Wood Creek Lake	1990	5,000
Lake Beshear	1991	5,000
Buckhorn Lake	1991	12,000
Cannon Creek Lake	1991	2,000
Carr Fork Lake	1991	7,500
Cave Run Lake	1991	4,500
Cranks Creek Lake	1991	2,200
Dewey Lake	1991	125,600
Fishtrap Lake	1991	11,000
Grayson Lake	1991	15,000
Martins Fork Lake	1991	3,400
Nolin River Lake	1991	25,000
Paintsville Lake	1991	11,000
Rough River Lake	1991	57,000
Wood Creek Lake	1991	5,000
Lake Beshear	1992	3,000
Buckhorn Lake	1992	5,000
Cannon Creek Lake	1992	1,000
Carr Fork Lake	1992	3,000
Cave Run Lake	1992	2,800
Cranks Creek Lake	1992	1,000
Dewey Lake	1992	56,000
Fishtrap Lake	1992	4,500
Grayson Lake	1992	4,500
Guist Creek Lake	1992	1,500
Martins Fork Lake	1992	1,500
Nolin River Lake	1992	2,300
Paintsville Lake	1992	1,000
Rough River Lake	1992	50,000
Dewey Lake	1993	53,000
Rough River Lake	1993	31,500
Carr Creek Lake	1994	3,550
Lake Beshear	1994	4,000
Nolin River Lake	1994	25,540
Paintsville Lake	1994	5,695

Table 1. Continued.

Lake	Year	Number of Fish
A.J. Jolly Lake	1996	20,000
Bullock Pen Lake	1996	13,400
Lake Linville	1996	26,800
Willisburg Lake	1996	12,400

Table 2. Lakes surveyed for Threadfin Shad with electrofishing gear and whether Threadfin Shad were detected.

Lake	Year	Threadfin Shad Detected	CPUE of Gizzard Shad	Average Size of Gizzard Shad	Trophic State Index (TSI)
Barren River Lake	2024	Y	NA	NA	57
Dewey Lake	2024	N	430.0	5-8 in	44
Taylorsville Lake	2024	N	1,000.6	3-7 in	62
Lake Beshear	2025	N	103.6	6-10 in	54
Lake Malone	2025	N	204.4	7-8 in	56
Wood Creek Lake	2025	N	55.2	8-10 in	51
Yatesville Lake	2025	N	433.8	3-5 in	36
Cave Run Lake	2026	N	61.4	All Sizes	47
Nolin River Lake	2026	Y	NA	NA	56
Rough River Lake	2026	N	636.0	3-4 in	60

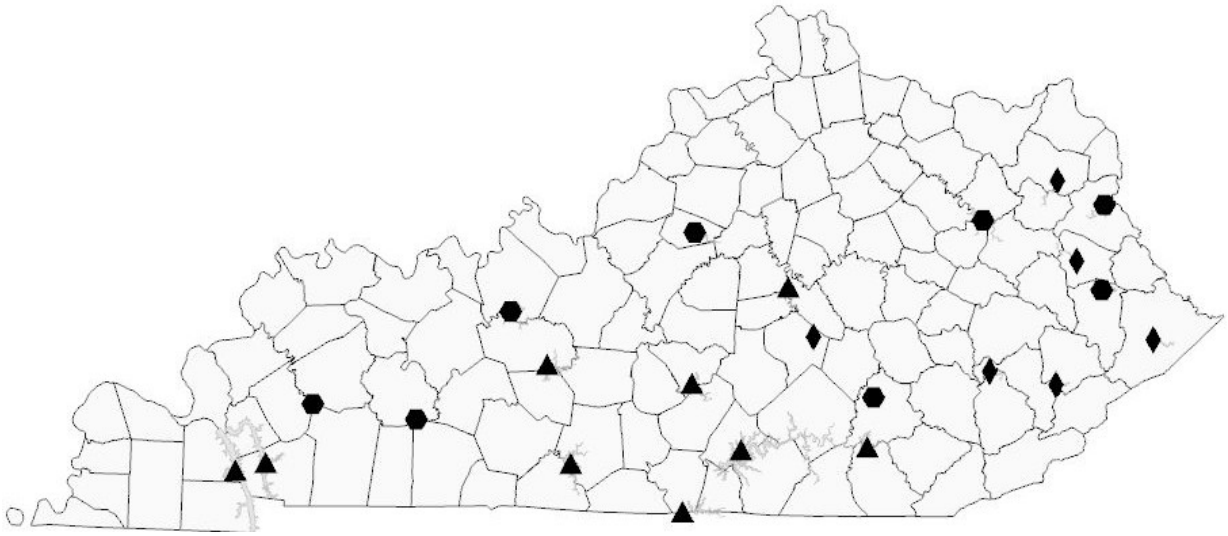

Figure 1. Map of Threadfin Shad distribution in Kentucky impoundments >500 acres as of 2025. Triangles are lakes where known Threadfin Shad populations are present and include Barren River Lake, Dale Hollow Lake, Green River Lake, Herrington Lake, Kentucky Lake, Lake Barkley, Lake Cumberland, Laurel River Lake, and Nolin River Lake. Hexagons are lakes where Threadfin Shad were sampled, but absent and include Cave Run Lake, Dewey Lake, Lake Beshear, Lake Malone, Rough River Lake, Taylorsville Lake, Wood Creek Lake and Yatesville Lake. Diamonds are impoundments where sampling is planned and include Buckhorn Lake, Carr Creek Lake, Cedar Creek Lake, Fishtrap Lake, Grayson Lake, and Paintsville Lake.

Project IV: Evaluation of Kentucky's Bass Stocking Initiative

FINDINGS

Variable recruitment in Largemouth Bass fisheries is common in Kentucky. This can lead to poor year class strength and potentially cause declines of a fishery. Kentucky's Bass Stocking Initiative (BSI) program was started in 2005 to combat this issue. However, results were variable and haven't been monitored since 2012. New updates for BSI include a new predictor model for if a stocking is needed, a spring stocking timeframe, stocking larger fish raised on minnow forage, and new 95% genetically pure Largemouth Bass broodstock. The objectives of this study are to update and evaluate the BSI program to determine if stocked Largemouth Bass are successfully contributing to the fishery.

The new BSI waterbody list includes study lakes and surplus waterbodies (Table 1). Study lakes are waterbodies that may benefit from bass stockings to offset recruitment issues and are going to be monitored during this study. Surplus waterbodies are stocked to bolster the bass fisheries using excess fish not used from the list of study lakes. Study lakes range in size from 114-5,600 acres. Study lakes will only be stocked if the new BSI model is triggered, district staff approve and will be stocked at a predetermined rate.

The new BSI regression focuses solely on fall CPUE of age-0 Largemouth Bass >5 in (Figure 1). Based on historical data collected during the BSI program, if fall CPUE of age-0 $\geq$5 in was $\geq$20 fish/hr, it rarely resulted in recruitment falling below a "fair" level (<20 fish/hr CPUE of age-1 Largemouth Bass in the spring). If a study lake has a fall electrofishing CPUE <20 fish/hr for age-0 Largemouth Bass including the standard error, a stocking can be considered. Stocking will be based on availability of hatchery produced fish and up to the discretion of district staff if the lake is to be stocked to meet management objectives.

Largemouth Bass used for broodstock at Kentucky state-owned hatcheries were tested for genetic purity with only $\geq$95% Largemouth Bass alleles selected for broodfish. Fish were PIT tagged to identify individual fish and verify genetic purity prior to spawning. The new production goal for the BSI program is 35,000 Largemouth Bass to be stocked in March. All bass stocked in study lakes will be marked with a fin clip to monitor contribution rates. Clipped fins can regenerate but normally under close inspection can be verified after partial regeneration. The fin clip will indicate that the bass is a stocked fish and the year class. Fin clipping will rotate each year between left/right pectoral or pelvic fins. All study lakes <2,000 acres will be stocked at a rate of 10 fish/acre. Study lakes >2,000 acres will be stocked at a rate of 5 fish/acre. Fish will be stocked in March at age-1 and evaluated the following spring with electrofishing gear as age-2 fish. Bass stocked in surplus waterbodies will not be marked or evaluated as part of this study.

Fall electrofishing sampling to determine study lakes eligible for stocking for BSI will follow the standard sampling protocol and effort by district staff. In stocked lakes, a standardized number of runs will be conducted for spring electrofishing; 50-250 acres will be 10 15-min runs or the entire shoreline, 251-1,500 acres will be sampled with 12 15-min runs, and >1,500-acres will receive 18 15-min runs.

Stocked study lakes will be sampled the year after stocking through the end of the study. This will allow for tracking stocked fish across multiple years. Research and district staff will share spring sampling responsibilities during this time. For study lakes where no stocking occurred, the normal spring bass electrofishing sampling protocol and effort will be followed by district staff.

All 13 study lakes were sampled in Fall 2024 to determine eligibility for stocking through the BSI program (Table 2). The following lakes had catch rates of age-0 $\geq$5 in Largemouth Bass <20 fish/hr that were eligible for stocking; Bullock Pen Lake, Carr Creek Lake, Fishtrap Lake, Greenbo Lake, Kincaid Lake, Lake Carnico, and Wood Creek Lake. Three lakes were selected for stocking in Spring 2025 at 10/fish/acre with a right pectoral fin clip: Carr Creek Lake, Fishtrap Lake, and Lake Carnico (Table 3). Excess Largemouth Bass were stocked into Herrington Lake, North Fork Elkhorn Creek, and Craigs

Creek on the Ohio River in Fall 2024 and Spring 2025. All study lakes that had catch rates of age-0 ≥5 in Largemouth Bass <20 fish/hr and were not stocked were due to good previous year class strength or an abundance of age-0 bass <5 in.

Twelve of 13 study lakes were sampled in Fall 2025 to determine eligibility for stocking through the BSI program (Table 4). The following lakes had catch rates of age-0 ≥5 in Largemouth Bass <20 fish/hr that were eligible for stocking; Bullock Pen Lake, Carr Creek Lake, Cranks Creek Lake, Kincaid Lake, Lake Carnico, and Wood Creek Lake. The same three study lakes were again selected for stocking in Spring 2026 at 10/fish/acre with a left pelvic clip: Carr Creek Lake, Fishtrap Lake, and Lake Carnico (Table 3). Excess Largemouth Bass were stocked into Green River Lake in Spring 2026. All study lakes that had catch rates of ≥5 in Largemouth Bass <20 fish/hr and were not stocked were due to good previous year class strength or an abundance of age-0 bass <5 in.

The new BSI regression predictor was evaluated using Fall 2024 and Spring 2025 electrofishing data. Taylorsville Lake and Lake Carnico were not sampled in Spring 2025. The model made the correct prediction of year class strength in seven of 11 lakes. Laurel River Lake was the only waterbody where a stocking was not recommended due to a CPUE of age-0 Largemouth Bass ≥5 in >20 fish/hr and had a spring age-1 catch rate <20 fish/hr. However, the fall catch rate standard error was within the <20 fish/hr range of age-0 Largemouth Bass ≥5 in, and the spring catch rate standard error was also within the >20 fish/hr range of age-1 Largemouth Bass. Bullock Pen Lake, Greenbo Lake, and Wood Creek Lake were optional to stock in 2025 through the BSI program based on catch rates of ≥5 in age-0 Largemouth Bass; however, spring catch rates were >20 fish/hr for age-1 Largemouth Bass, which were false negatives. These lakes demonstrate that low fall catch rates of age-0 Largemouth Bass ≥5 in do not always translate to low catch rates of age-1 bass in the spring. Viewing the new BSI regression model plotted with the historical data of the BSI program, you will note this is the most common quadrant for errors. This should be noted by lake managers as an accepted weakness of the regression model in predicting bass recruitment. In this instance, lake managers would unnecessarily be stocking BSI fish on a year-class that didn't warrant a stocking.

Largemouth Bass stocked in Spring 2025 and 2026 averaged 5.3-5.4 in compared to 4.4 in during the original BSI study (Table 3). This is most likely due to fish being held overwinter and fed forage during the fall. While not part of the study, Fall 2025 electrofishing surveys at Lake Carnico, Fishtrap, and Carr Creek Lake yielded good numbers of BSI fish. The catch rate of age-1 marked Largemouth Bass was 7.3 fish /hr with lengths ranging from the 6-9 in classes at Lake Carnico. The catch rate of age-1 marked Largemouth Bass was 16.0 fish/hr with lengths ranging from the 8-11 in classes at Fishtrap Lake. The catch rate of age-1 marked Largemouth Bass was 10.4 fish/hr with lengths ranging from the 7-10 in classes in Fall 2025 at Carr Creek Lake. The relative weights of BSI fish were slightly lower than bass naturally produced in the lakes. For Largemouth Bass in the 8.0-11.9 in length group, relative weights were 81(2) for BSI fish, compared to 89(2) for natural fish at Carr Creek Lake. In Fishtrap Lake, Largemouth Bass in the 8.0-11.9 in length group had relative weights of 87(1) for BSI fish, compared to 90(1) for natural fish.

Table 1. New bass stocking initiative (BSI) waterbodies as of 2025. Study lakes <2,000 acres stocked at a rate of 10 fish/acre, >2,000 acres stocked at a rate of 5 fish/acre. All surplus lakes are stocked at a rate of 5 fish/acre and streams stocked at historical levels.

Study Lakes	Acreage	Number of Fish	Surplus Waterbodies	Acreage	Number of Fish
Bullock Pen Lake	134	1,340	Buckhorn Lake	1,230	6,150
Carr Creek Lake	710	7,100	Herrington Lake	2,670	13,350
Cedar Creek Lake	792	7,920	Martins Fork Lake	330	1,650
Cranks Creek Lake	219	2,190	Eagle Creek	NA	1,000
Dewey Lake	1,100	11,000	Kinniconick Creek	NA	1,500
Fishtrap Lake	1,143	11,430	Licking River	NA	3,000
Greenbo Lake	181	1,810	North Fork Elkhorn Creek	NA	1,500
Kincaid Lake	183	1,830	Ohio River (Big Bone)	NA	1,000
Lake Carnico	114	1,140	Ohio River (Clover Creek)	NA	4,000
Laurel River Lake	5,600	28,000	Ohio River (Craigs Creek)	NA	4,000
Taylorsville Lake	3,050	15,250	Salt River	NA	3,000
Wood Creek Lake	625	6,250	Slate Creek	NA	1,500
Yatesville Lake	2,171	10,855	South Fork Licking River	NA	3,000
			Stoner Creek	NA	1,500
			Tygarts Creek	NA	2,000

Table 2. Thirteen study lakes for bass stocking initiative (BSI) with Largemouth Bass electrofishing catch rates in Fall 2024 and Spring 2025. For the three study lakes stocked in 2025, the Spring CPUE of age-1 Largemouth Bass only includes wild unmarked fish.

Lake	Fall CPUE of Age-0 ≥5 in	SE	Fish Stocked (Y/N)	Spring CPUE of Age-1	SE
Bullock Pen	15.3	5.6	N	36.5	5.0
Carr Creek Lake	4.0	1.3	Y	9.2*	1.8
Cedar Creek Lake	53.3	19.3	N	95.5	22.0
Cranks Creek Lake	22.4	5.6	N	48.8	8.2
Dewey Lake	26.0	7.3	N	75.2	16.5
Fishtrap Lake	19.6	6.1	Y	4.8*	1.8
Greenbo Lake	0.7	0.7	N	65.3	1.3
Kincaid Lake	3.3	1.6	N	7.0	2.1
Lake Carnico	12.0	2.9	Y	No sample	No sample
Laurel River Lake	22.2	6.2	N	18.2	5.0
Taylorsville Lake	27.8	3.8	N	No sample	No sample
Wood Creek Lake	13.3	8.2	N	32.0	14.3
Yatesville Lake	34.7	7.3	N	93.3	8.4

Table 3. Number of fish stocked in BSI lakes from 1 March 2025 – 31 March 2026.

Lake	Acreage	Number of Fish Stocked	Fish/Acre	Average Length (in)	Fin Clip	Stocking Date	Stocking Location
Carr Creek Lake	710	7,100	10.0	5.3	Right pectoral	3/07/2025	Carr Creek Lake Marina
Fishtrap Lake	1,143	11,436	10.0	5.4	Right pectoral	3/07/2025	Fishtrap Dam Ramp
Lake Carnico	114	1,144	10.0	5.3	Right pectoral	3/06/2025	Lake Carnico Boat Ramp
Carr Creek Lake	710	7,134	10.0	5.4	Left pelvic	3/11/2026	Carr Creek Lake Marina
Fishtrap Lake	1,143	11,460	10.0	5.4	Left pelvic	3/11/2026	Fishtrap Dam Ramp
Lake Carnico	114	1,147	10.0	5.4	Left pelvic	3/10/2026	Lake Carnico Boat Ramp

Table 4. Thirteen study lakes for bass stocking initiative (BSI) with Largemouth Bass electrofishing catch rates in Fall 2025 and Spring 2026.

Lake	Fall CPUE of Age-0 ≥5 in	SE	Fish Stocked (Y/N)	Spring CPUE of Age-1	SE
Bullock Pen	6.7	2.2	N	TBD	TBD
Carr Creek Lake	11.6	1.9	Y	TBD	TBD
Cedar Creek Lake	34.7	7.3	N	TBD	TBD
Cranks Creek Lake	17.6	3.7	N	TBD	TBD
Dewey Lake	50.0	12.2	N	TBD	TBD
Fishtrap Lake	26.4	6.8	Y	TBD	TBD
Greenbo Lake	No sample	No sample	N	TBD	TBD
Kincaid Lake	6.7	4.5	N	TBD	TBD
Lake Carnico	6.0	2.5	Y	TBD	TBD
Laurel River Lake	34.4	5.9	N	TBD	TBD
Taylorsville Lake	33.8	5.0	N	TBD	TBD
Wood Creek Lake	4.7	3.2	N	TBD	TBD
Yatesville Lake	33.3	6.8	N	TBD	TBD

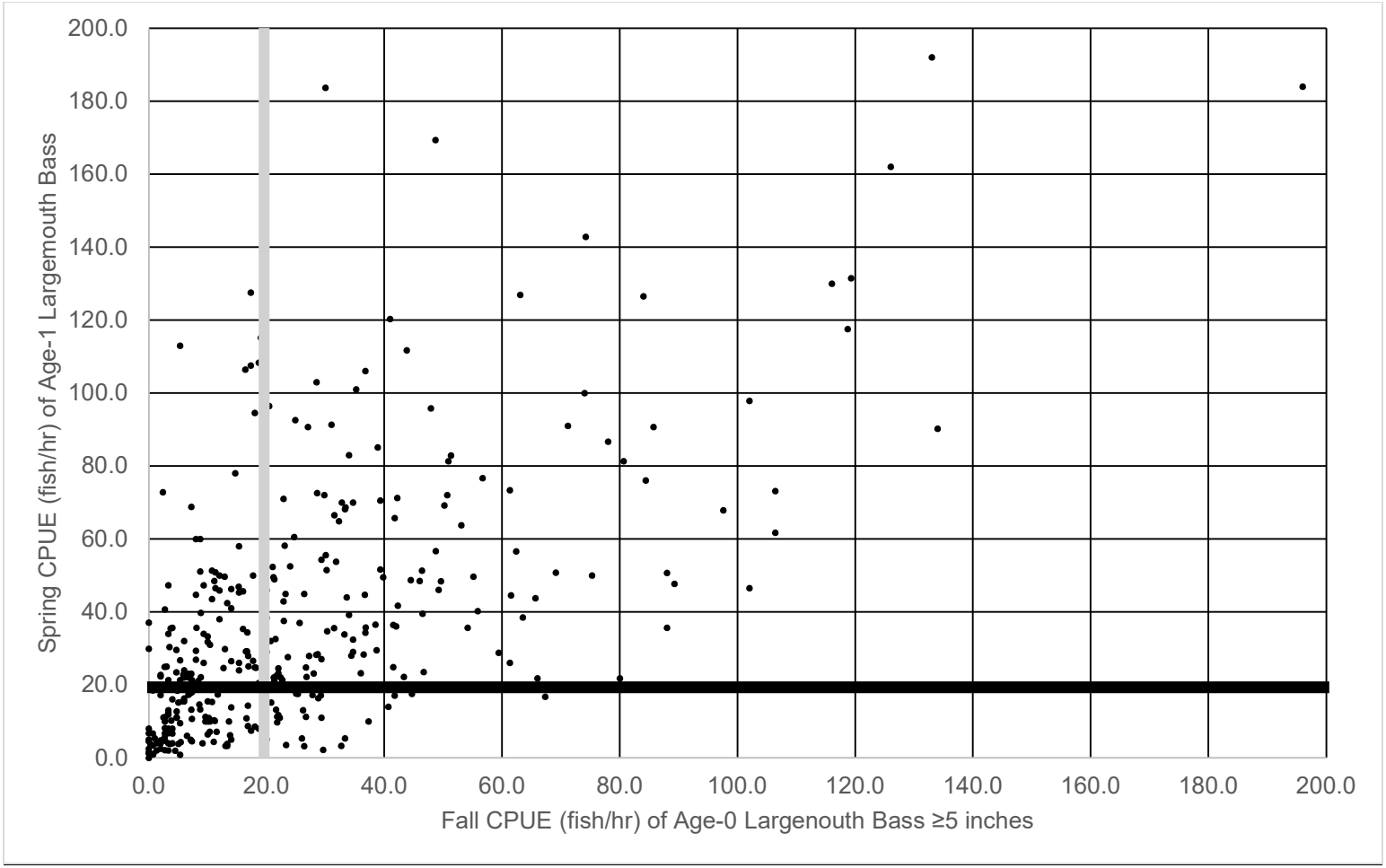

Figure 1. New predictive model for bass stocking initiative (BSI) developed in 2024 based on 2005-2023 BSI data. The grey line represents the trigger for fall age-0 ≥5 in CPUE at 20 fish/hr for a lake to be considered for stocking. The black line represents the benchmark for spring electrofishing CPUE of age-1 bass at 20 fish/hr which is near the upper limit of the Largemouth Bass assessment for receiving a fair score for year class strength.

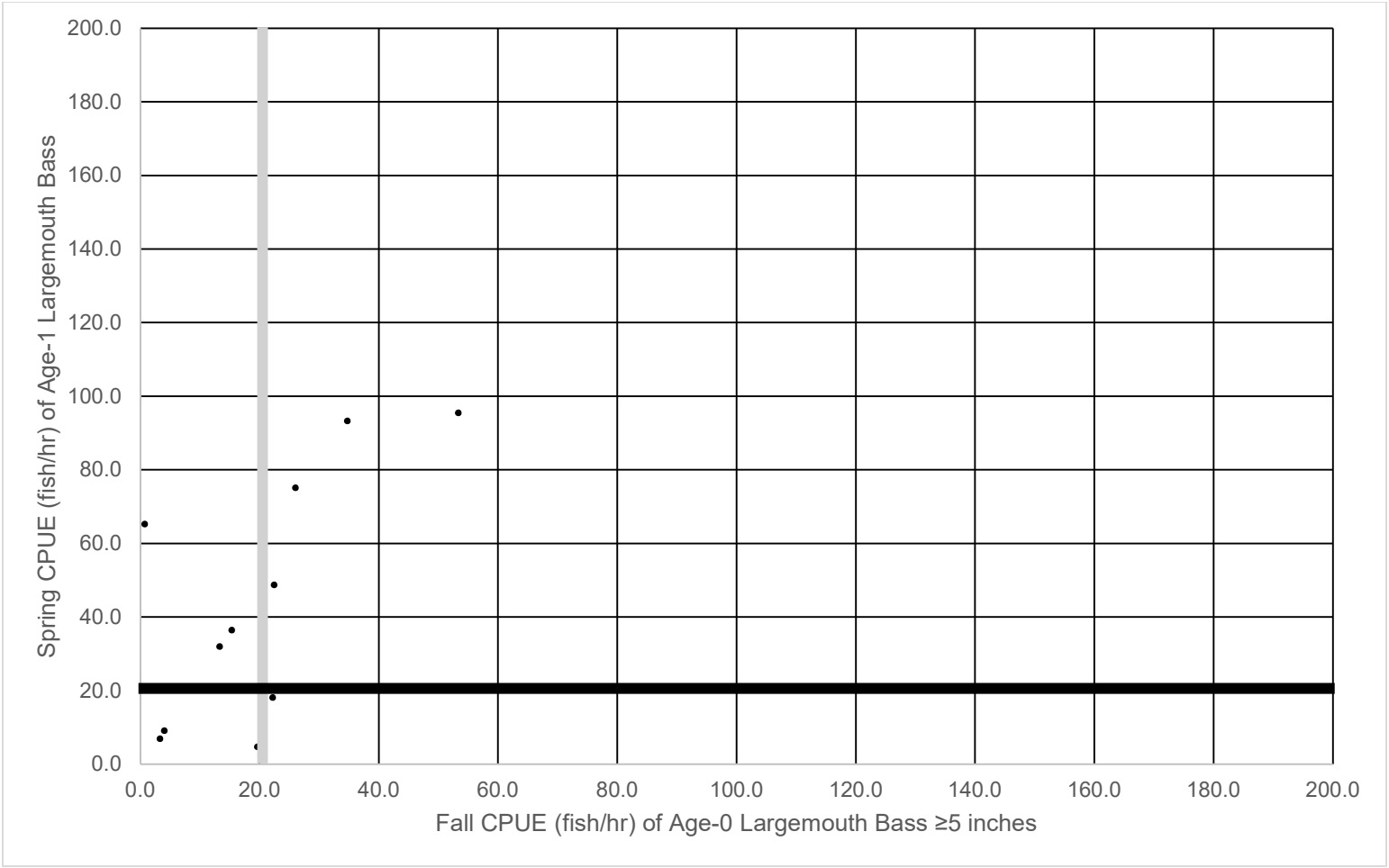

Figure 2. Predictive model for bass stocking initiative (BSI) based on electrofishing data from Fall 2024 and Spring 2025 at study lakes. The grey line represents the trigger for fall age-0 ≥5 in CPUE at 20 fish/hr for a lake to be considered for stocking. The black line represents the benchmark for spring electrofishing CPUE of age-1 bass at 20 fish/hr which is near the upper limit of the Largemouth Bass assessment for receiving a fair score for year class strength.

Project V: Evaluating Largemouth Bass Removals in Three Small Kentucky Impoundments

FINDINGS

The objectives of this study are 1) to create a standardized bass removal method, 2) achieve a balanced Largemouth Bass population within three years of bass removals beginning, 3) maintain a balanced population for three years after bass removals cease, 4) significantly increase spring electrofishing CPUE of 12.0-14.9 and ≥15.0 in length groups of Largemouth Bass.

In some impoundments, Largemouth Bass populations can become overcrowded, leading to stunted growth. When angler harvest is insufficient in keeping the fishery balanced and meeting management objectives, alternative methods may be needed. In recent years, several state agencies have removed bass with electrofishing gear in an attempt to restore balance to fisheries.

The spring electrofishing catch rate will determine if a bass removal is needed and whether a high rate or base removal rate is needed that year. If the CPUE of Largemouth Bass <12 in is >200 fish/hr, then a high rate (40 fish/acre) removal will be used. If the catch rate of Largemouth Bass <12 in is 150-200 fish/hr then a base rate (20 fish/acre) will be used. If the catch rate of Largemouth Bass <12 in is <150 fish/hr then no removal will occur that year. Both the high rate and the base rate would consist of removing all bass sampled <12 in; however, if bass removals occur in the fall, young of year bass will be removed but not counted towards the removal goal. Spring electrofishing surveys on all study lakes >50 acres will follow the standardized sampling protocol of a minimum of 10 15-min runs or the entire shoreline. The spring electrofishing samples to determine if removals are needed will be conducted for three years (2025-27). There will be a three-year evaluation period after the removal period, consisting of the same spring and fall sampling effort with no bass removals occurring (2028-30).

Removal lakes will be evaluated by monitoring changes in spring electrofishing catch rates of Largemouth Bass in the <12.0, 12.0-14.9, and >15.0 in length groups occurring before, during and after removals. Largemouth Bass PSD and Wr values will also be evaluated to see if a balanced fishery is created with desired bass PSD values ranging from 40-70, RSD_{15} ranging from 10-40, and Wr values of 85+ for the 8.0-11.9 in length group where most crowding issues occur. Growth rates will also be compared to pre-treatment, post treatment (2028), and three years after treatment (2031). The study lakes will also be evaluated to determine how long the benefits of bass removals last if desired objectives are met.

Benjy Kinman Lake (88 acres; Henry County), Panbowl Lake (75 acres; Breathitt County), and Shanty Hollow Lake (109 acres; Warren and Edmonson Counties) are all impoundments that face challenges with high catch rates of Largemouth Bass, overcrowding, and a growth bottleneck (Figure 1). These lakes were chosen as study lakes for bass removals to be evaluated for this study.

A total of 10 15-min spring nocturnal electrofishing runs were conducted at Benjy Kinman Lake in April 2025. The overall catch rate of Largemouth Bass was 220.8 fish/hr in 2025, with a CPUE <12 in of 202.8 fish/hr (Table 1). The majority of Largemouth Bass surveyed in 2025 were <12 in (Figure 2). The PSD for Largemouth Bass was 11 with a RSD_{15} of 6 (Table 2). While the high removal rate (40 fish/acre) was recommended for Benjy Kinman, the base rate (20 fish/acre) was chosen at the request of the central fishery district due to low catch rates during removal efforts, the standard error encompassing the high and base rate, and concerns of removing fish from weaker year classes.

A total of 10 15-min diurnal electrofishing runs were conducted at Panbowl Lake in April 2025. The overall catch rate of Largemouth Bass was 367.6 fish/hr in 2025, with a CPUE <12 in of 350.8 fish/hr (Table 3). The overwhelming majority of Largemouth Bass collected in the 2025 sample were <12 in (Figure 3). The PSD for Largemouth Bass was 7 with a RSD_{15} of 4 (Table 4). Panbowl Lake received a high removal rate of 40 fish/acre in 2025.

A total of eight 15-min nocturnal electrofishing runs were conducted at Shanty Hollow Lake in April 2025. The overall catch rate of Largemouth Bass was 208.0 fish/hr in 2025, with a CPUE <12 in of 147.5 fish/hr (Table 5). The majority of Largemouth Bass collected in the 2025 sample were in the 9-13 in classes

(Figure 4). The PSD for Largemouth Bass was 33 with a RSD_{15} of 4 (Table 6). Shanty Hollow Lake received the base removal rate (20 fish/acre) in 2025 due to the CPUE standard error encompassing the base removal rate (CPUE <12 in of 150-200 fish/hr). The water level during sampling in Spring 2025 was high and shocking the shoreline was difficult as bass were coming up behind buttonbush which made dipping difficult and likely lowered catch rates. Due to several years of elevated bass catch rates prior to the study, the southwest fisheries district requested the base removal rate based on sampling conditions and the standard error encompassing the base rate.

An age and growth sample of Largemouth Bass was taken on Benjy Kinman Lake in 2023 (Table 7). There was another age and growth sample collected in 2025 for Largemouth Bass <12 in (Table 8) to determine if growth had significantly changed after two years of bass removals (prior to study). In the 2023 sample, there was an abundance of young fish <11 in. In the 2025 survey, there was some crowding starting to occur in the 10-11 in classes with fish present from multiple year classes. An age and growth sample for Largemouth Bass was taken on Panbowl Lake in 2025. The age and growth data showed crowding in the 9-14 in classes with multiple age classes of Largemouth Bass present (Table 9). This slow growth is especially problematic in conjunction with the length frequency of bass collected in the 8-10 in classes in 2025 (Figure 3). An age and growth sample for Largemouth Bass was taken on Shanty Hollow in 2024. The age and growth data indicated crowding in the 10-14 in classes with multiple age classes of Largemouth Bass present (Table 10). Again, this growth bottleneck is especially problematic in conjunction with the length frequency and the number of bass collected in the 9-13 in classes in 2025 (Figure 4).

Largemouth Bass targeted for removal were age-1 and older, and <12.0 in. Age-0 Largemouth Bass were removed if removal efforts were conducted in the fall, but those bass were not counted towards the removal effort goal.

A total of 1,760 Largemouth Bass (3-11 in class) were removed from Benjy Kinman Lake between 30 April 2025 – 4 June 2025 in 11 removal events with 17 boat days needed to meet the removal goal (Figure 5). An additional 92 Largemouth Bass ≥12 in were removed in 2025 for another project but not counted towards the removal goal. This removal of bass ≥12 in may reduce catch rates of fish in the 12.0-14.9 and ≥15.0 in length group in subsequent years as there were low numbers of bass in this size range. Largemouth Bass removed from Benjy Kinman Lake were stocked into Guist Creek Lake, Kentucky River Pool 3, and Elkhorn Creek.

A total of 3,014 Largemouth Bass (3-11 in class) and 726 young of year fish (2-5 in class in the fall) were removed from Panbowl Lake between 22 April 2025 – 1 October 2025 in eight removal events and 17 boat days to meet the removal goal (Figure 6). Largemouth Bass removed were stocked into North Fork of the Kentucky River and the Meldahl Pool of the Ohio River.

A total of 2,181 Largemouth Bass were removed from Shanty Hollow Lake between 29 April 2025 – 28 May 2025 in four removal events with nine boat days (Figure 7). Removed Largemouth Bass were stocked in Pool 3 of the Green River which is connected to the spillway outflow.

Fall electrofishing surveys were conducted at the three study lakes in 2025. Relative weights increased with size for Largemouth Bass at Benjy Kinman Lake with relative weights of 84, 90, and 94 for the 8.0-11.9, 12.0-14.9, and ≥15.0 in length groups, respectively (Table 11). Relative weights were low (82) for both the 8.0-11.9 and 12.0-14.9 in length groups at Panbowl Lake, while ≥15.0 in length group of Largemouth Bass had a relative weight of 95 with fish in good condition (Table 12). Relative weights decreased with size at Shanty Hollow Lake with relative weights of 85, 83, and 78 for the 8.0-11.9, 12.0-14.9, and ≥15.0 in length groups, respectively (Table 13). Apart from 12.0-14.9 and ≥15 in length groups at Benjy Kinman Lake and the ≥15 in length group at Panbowl Lake, relative weights were lower than desired for Largemouth Bass at all three study lakes. The relative weights were lower than desired at all three study for Largemouth Bass in the 8.0-11.9 in length group, with these lakes having a recent history of low relative weights for this length group of bass.

Largemouth Bass electrofishing sampling was also conducted in the Fall 2025 to index year class strength at age-0. Benjy Kinman Lake was sampled in September with an overall catch rate of age-0 Largemouth Bass of 122.0 fish/hr and catch rate for age-0 >5.0 in of 32.7 fish/hr (Table 14). The average

length of age-0 Largemouth Bass was 4.5 in at Benjy Kinman Lake in 2025. Panbowl Lake was sampled in September 2025 with an overall catch rate of age-0 Largemouth Bass of 66.4 fish/hr and catch rate for age-0 >5.0 in of 8.4 fish/hr (Table 15). The average length of age-0 Largemouth Bass was 4.1 in at Panbowl Lake in 2025. Shanty Hollow Lake was sampled in September 2025 with an overall catch rate of age-0 Largemouth Bass of 149.5 fish/hr and catch rate for age-0 >5.0 in of 63.5 fish/hr (Table 16). The average length of age-0 Largemouth Bass was 4.8 in at Shanty Hollow Lake in 2025.

Catch rates for age-0 Largemouth Bass at Benjy Kinman Lake and Shanty Hollow Lake were high in the Fall 2025 electrofishing survey. This may be a good indicator that removals will be needed in 2026 if bass recruit to age-1. The catch rate of age-0 Largemouth Bass was much lower at Panbowl Lake in Fall 2025 compared to the other study lakes. While age-0 Largemouth Bass were removed from Panbowl Lake in Fall 2025, this was after the fall electrofishing survey to determine age-0 year class strength. The removal of 726 age-0 Largemouth Bass from Panbowl Lake is roughly 10 fish/acre and reduced the year class further. Panbowl Lake was drawn down roughly five feet in summer/fall 2025 while Division of Transportation worked on the highway crossing the dam. Aquatic Control also treated invasive Eurasian Milfoil with herbicide in 2025. Both actions may have led to a weaker Largemouth Bass year class in 2025 at Panbowl Lake as young bass had fewer places to hide. The high catch rates of age-0 Largemouth Bass at Benjy Kinman Lake and Shanty Hollow Lake in 2025 could be due to compensatory spawns with resources freeing up after bass removals. As previously mentioned, Shanty Hollow was full in 2025 with abundant flooded habitat for small bass. If Largemouth Bass recruitment continues to be high, then continual removals may be necessary to keep bass numbers in check.

All study lakes were good candidates for this research project as bass removals were needed at each lake in the first year of the study. Largemouth Bass were in low abundance or missing from several in classes (13-19) at all three study lakes at the beginning of this study (Figures 2-4).

The effort it took to achieve bass removal goals varied by lake. Effort was measured in boat days, which was the number of days it would take for a crew on one boat to achieve the removal goal. Benjy Kinman Lake and Panbowl both required 17 boat days, while Shanty Hollow required nine boat days. While Shanty Hollow Lake had the least amount of boat days, crews performed overnight stays and worked long days to maximize efficiency. Benjy Kinman Lake was the opposite as shorter trips were made to remove fish. To maximize efficiency, full day multi-boat removal efforts are recommended in the spring.

Threadfin Shad were introduced to Benjy Kinman Lake from flooding on the Kentucky River in April 2025. While Threadfin Shad were abundant in the lake after spawning, age 0-catch rates of Largemouth Bass remained stable in 2025 compared to previous years. Relative weights did improve slightly for Largemouth Bass in the 12.0-14.9 in length group at Benjy Kinman in 2025 compared to 2024 possibly impacted by the addition of Threadfin Shad. However, relative weights decreased for the $\geq$15 in length group and remained stable for the 8.0-11.9 in length group of Largemouth Bass during the same period at Benjy Kinman Lake. This flooding inundation over several days may have impacted Largemouth Bass numbers through emigration/immigration during flooding.

Table 1. Spring electrofishing catch rate (fish/hr) by length group for Largemouth Bass collected at Benjy Kinman Lake in 2025.Standard error in parentheses.

	Length Group			
Year	<12.0	12.0-14.9	≥15.0	Total
2025	202.8 (21.5)	8.4 (1.6)	9.6 (1.8)	220.8 (22.5)

Table 2. PSD and RSD_{15} values calculated for Largemouth Bass collected in spring electrofishing samples at Benjy Kinman Lake in 2025; 95% confidence intervals are in parentheses.

Year	≥ Stock Size	PSD	RSD_{15}
2025	407	11 (±3)	6 (±2)

Table 3. Spring electrofishing catch rate (fish/hr) by length group for Largemouth Bass collected at Panbowl Lake in 2025. Standard error in parentheses.

	Length Group			
Year	<12.0	12.0-14.9	≥15.0	Total
2025	350.8 (33.9)	7.6 (3.8)	9.2 (4.3)	367.6 (37.9)

Table 4. PSD and RSD_{15} values calculated for Largemouth Bass collected in spring electrofishing samples at Panbowl Lake in 2025; 95% confidence intervals are in parentheses.

Year	≥ Stock Size	PSD	RSD_{15}
2025	616	7 (±2)	4 (±2)

Table 5. Spring electrofishing catch rate (fish/hr) by length group for Largemouth Bass collected at Shanty Hollow Lake in 2025. Standard error in parentheses.

	Length Group			
Year	<12.0	12.0-14.9	≥15.0	Total
2025	147.5 (9.6)	53.5 (4.3)	7.0 (1.3)	208.0 (8.3)

Table 6. PSD and RSD_{15} values calculated for Largemouth Bass collected in spring electrofishing samples at Shanty Hollow Lake in 2025; 95% confidence intervals are in parentheses.

Year	≥ Stock Size	PSD	RSD_{15}
2025	360	33 (±5)	4 (±2)

Table 7. Age frequency and CPUE (fish/hr) per inch class of Largemouth Bass collected during 2.0 hours of spring electrofishing at Benjy Kinman Lake in 2023.

	Inch class																							
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	%	CPUE	SE
1		39	128	84																	251	37	125.3	19.5
2				10	22	149	126	12													319	47	159.6	11.4
3							28	35	7	1											71	10	35.4	1.6
4									5	3	3										11	1	5.0	1.3
5							14				1			2							17	3	8.7	0.6
6										1					3	2					6	1	2.8	0.8
7																	2				2	0	1.0	0.8
8																2		3			5	1	2.3	1.0
9																					0		0.0	
10																					0		0.0	
11																	2				2	0	1.0	0.8
12																					0		0.0	
13																			3		3	0	1.5	0.7
Total	0	39	128	94	22	149	168	47	12	5	4	0	0	2	3	4	4	3	3	0	687	100		
%	0	6	19	14	3	22	24	7	2	1	1	0	0	0	0	0	1	0	0	0	100			

Table 8. Age frequency and CPUE (fish/hr) per inch class of Largemouth Bass collected during 2.0 hours of spring electrofishing at Benjy Kinman Lake in 2025.

	Inch class																							
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	%	CPUE	SE
1		17	59	31																	107	21	42.8	5.8
2					37	145	23														205	40	81.9	11.6
3						14	104	41	11												170	34	68.0	7.1
4								9	8												17	3	6.9	1.1
5								5	3												7	1	2.9	0.4
6																					0		0	
7																					0		0	
8																					0		0	
9																					0		0	
10																					0		0	
11																					0		0	
12																					0		0	
13																					0		0	
Total		17	59	31	37	159	127	54	22	17	0	0	0	0	0	0	0	0		0	506	100		
%		3	12	6	7	31	25	11	4	3	0	0	0	0	0	0	0	0		0	100			

Table 9. Age frequency and CPUE (fish/hr) per inch class of Largemouth Bass collected during 2.5 hours of spring electrofishing at Panbowl Lake in 2025.

	Inch class																							
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	%	CPUE	SE
1	2	81	148	43																	274	30	109.6	11.9
2					29	146	14														188	21	75.4	10.5
3						15	138	18	5												176	19	70.4	9.0
4							14	88	31	3											136	15	54.3	5.9
5							28	53	10	3	3	2									98	11	39.3	4.2
6								9	5	3	1	2	2	1	1	1					26	3	10.2	2.5
7												1				1	1				3	0	1.3	0.8
8											1	1				1	1	2			7	1	2.6	1.1
9															1		1	2	4		8	1	3.2	1.0
10																	2				2	0	0.8	0.6
11																				1	1	0	0.4	0.4
12																					0		0.0	
13																					0		0.0	
Total	2	81	148	43	29	161	193	168	51	9	5	6	2	1	2	4	5	4	4	1	919	100		
%	0	9	16	5	3	18	21	18	6	1	1	1	0	0	0	0	1	0	0	0	100			

Table 10. Age frequency and CPUE (fish/hr) per inch class of Largemouth Bass collected during 2.0 hours of spring electrofishing at Shanty Hollow Lake in 2024.

	Inch class																						
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	%	CPUE	SE
1			12	7	5																24	6	16.0	3.7
2						32	84	14													130	34	86.9	9.0
3								57	84	8	2										151	39	100.7	10.5
4								7	11	20	5										42	11	28.3	1.0
5										8	5	2	2								16	4	10.4	1.0
6									11		3	1	2			2					18	5	11.9	1.2
7												1		1	1			2			5	1	3.2	1.3
8																					0		0.0	
9														1							1	0	0.7	0.4
10																					0		0.0	
11																					0		0.0	
12																					0		0.0	
13																					0		0.0	
Total			12	7	5	32	84	79	105	36	14	3	3	2	1	2	0	2	0	0	387	100		
%			3	14	3	22	24	7	2	9	4	1	1	1	0	1	0	1	0	0	100			

Table 11. Number of fish and the relative weight (Wr) for each length group of Largemouth Bass collected in fall electrofishing at Benjy Kinman Lake in 2025. Standard errors are in parentheses.

	Length group (in)							
Year	8.0-11.9		12.0-14.9		≥15.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2025	60	84 (1)	33	90 (2)	20	94 (2)	113	88(1)

Table 12. Number of fish and the relative weight (Wr) for each length group of Largemouth Bass collected in fall electrofishing at Panbowl Lake in 2025. Standard errors are in parentheses.

	Length group (in)							
Year	8.0-11.9		12.0-14.9		≥15.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2025	129	82 (1)	18	82 (2)	19	95 (2)	166	84(1)

Table 13. Number of fish and the relative weight (Wr) for each length group of Largemouth Bass collected in fall electrofishing at Shanty Hollow Lake in 2025. Standard errors are in parentheses.

	Length group (in)							
Year	8.0-11.9		12.0-14.9		≥15.0		Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2025	166	85 (1)	107	83 (1)	29	78 (3)	302	84(1)

Table 14. Indices of year class strength at age-0 and age-1 and mean length (in) for Largemouth Bass collected by electrofishing at Benjy Kinman Lake in 2025.

	Age-0		Age-0		Age-0 ≥5.0 in		Age-1	
Year Class	Mean Length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2025	4.5	0.1	122.0	24.6	32.7	10.7		

Table 15. Indices of year class strength at age-0 and age-1 and mean length (in) for Largemouth Bass collected by electrofishing at Panbowl Lake in 2025.

	Age-0		Age-0		Age-0 ≥5.0 in		Age-1	
Year Class	Mean Length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2025	4.1	0.1	66.4	10.1	8.4	1.7		

Table 16. Indices of year class strength at age-0 and age-1 and mean length (in) for Largemouth Bass collected by electrofishing at Shanty Hollow Lake in 2025.

	Age-0		Age-0		Age-0 ≥5.0 in		Age-1	
Year Class	Mean Length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2025	4.8	0.1	149.5	13.8	63.5	11.2		

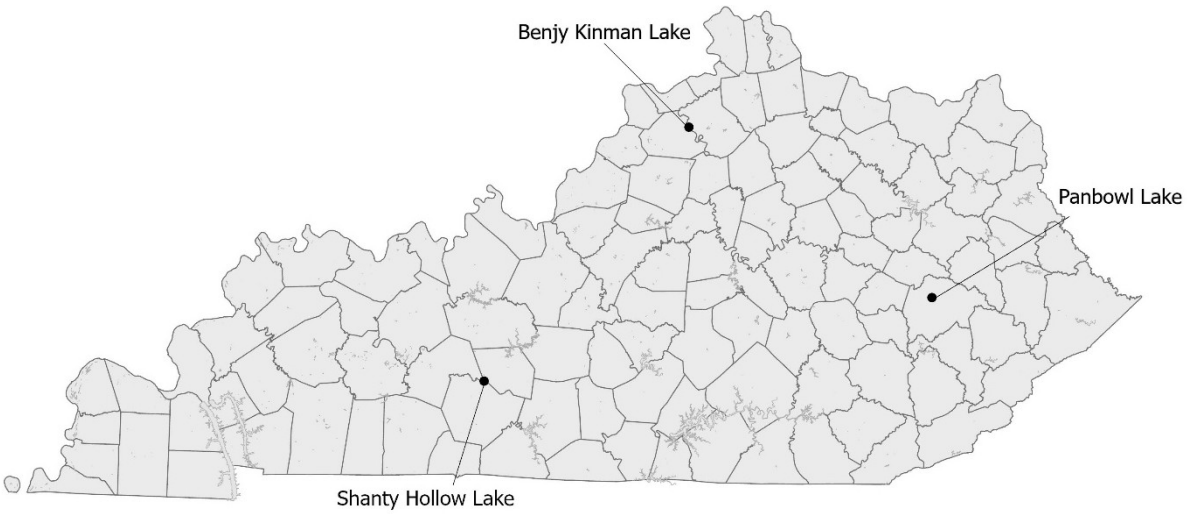

Figure 1. Map of study lakes in Kentucky

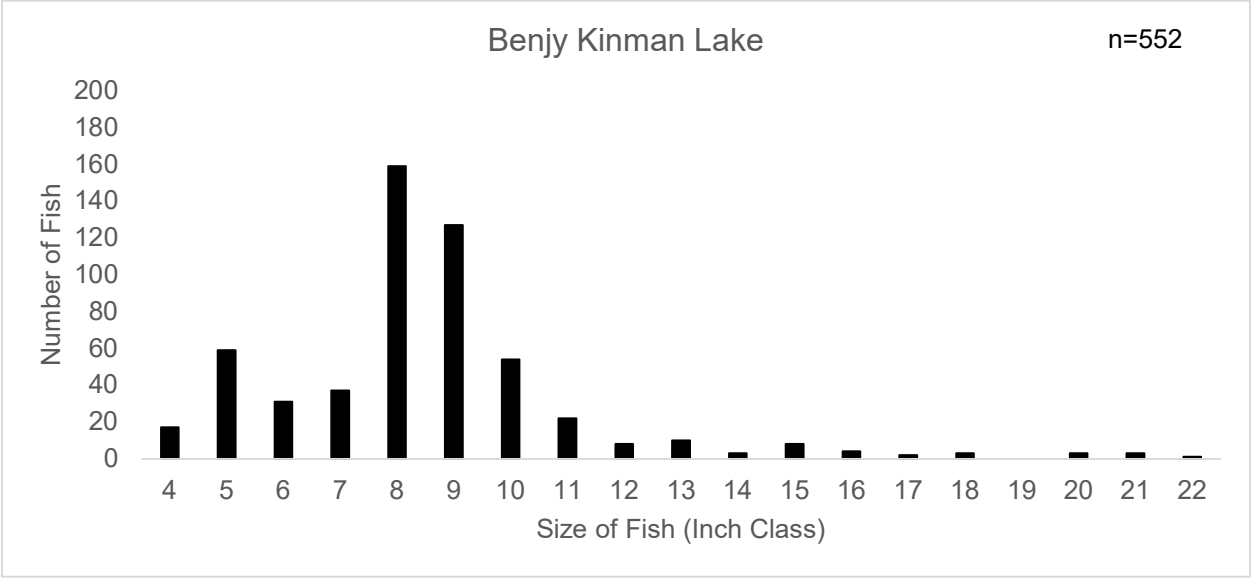

Figure 2. Length frequency of Largemouth Bass surveyed with electrofishing gear during April 2025 from Benjy Kinman Lake.

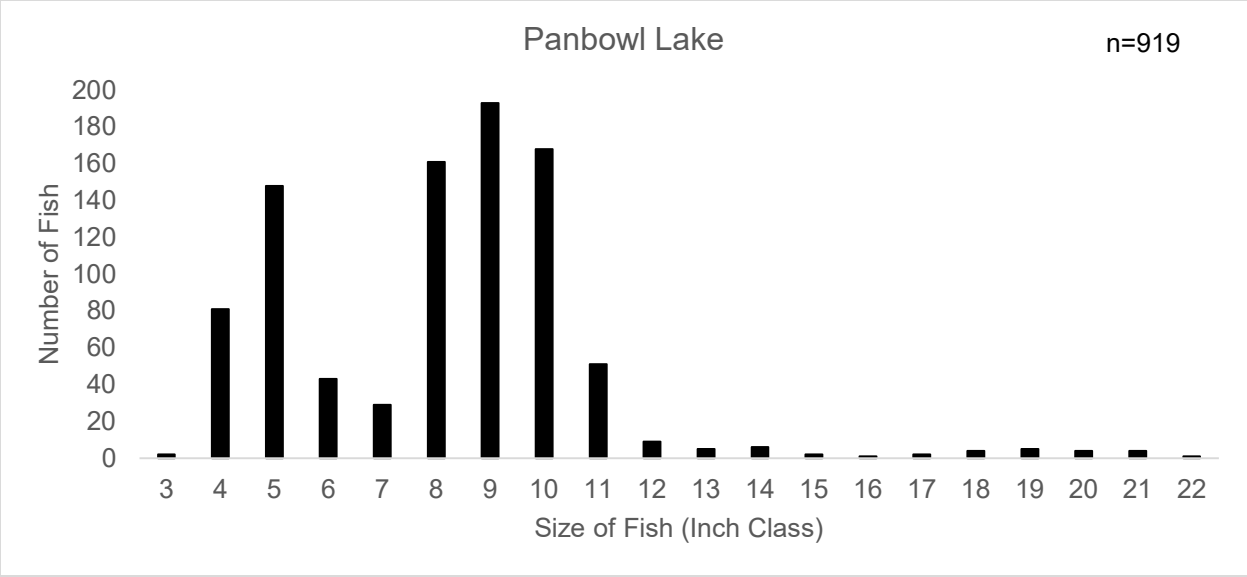

Figure 3. Length frequency of Largemouth Bass surveyed with electrofishing gear during April 2025 from Panbowl Lake.

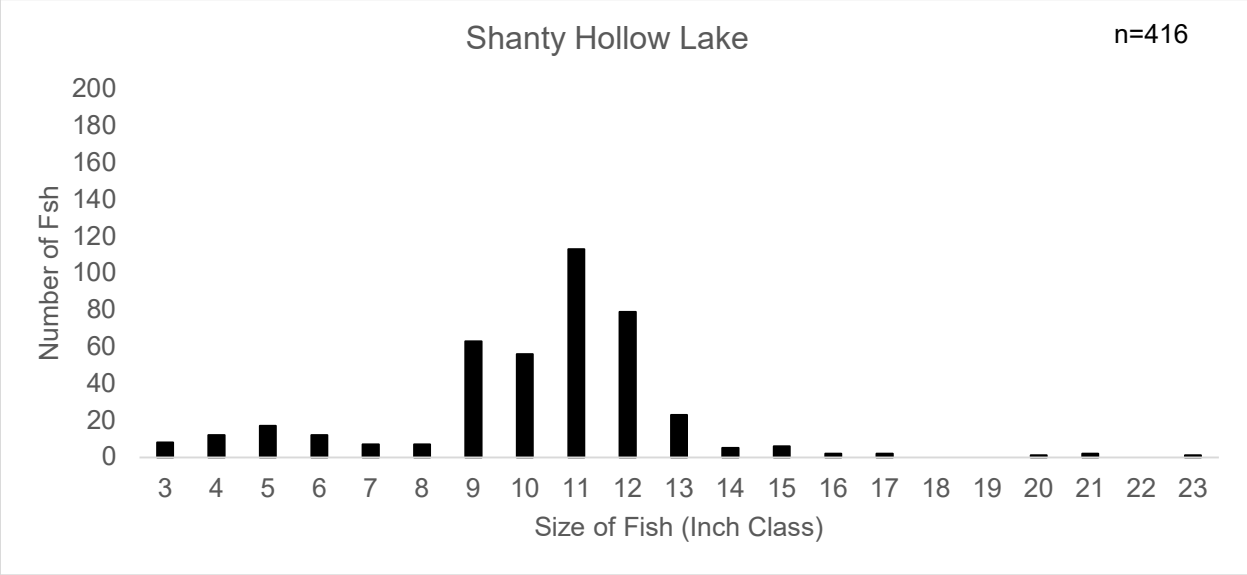

Figure 4. Length frequency of Largemouth Bass surveyed with electrofishing gear during April 2025 from Shanty Hollow Lake.

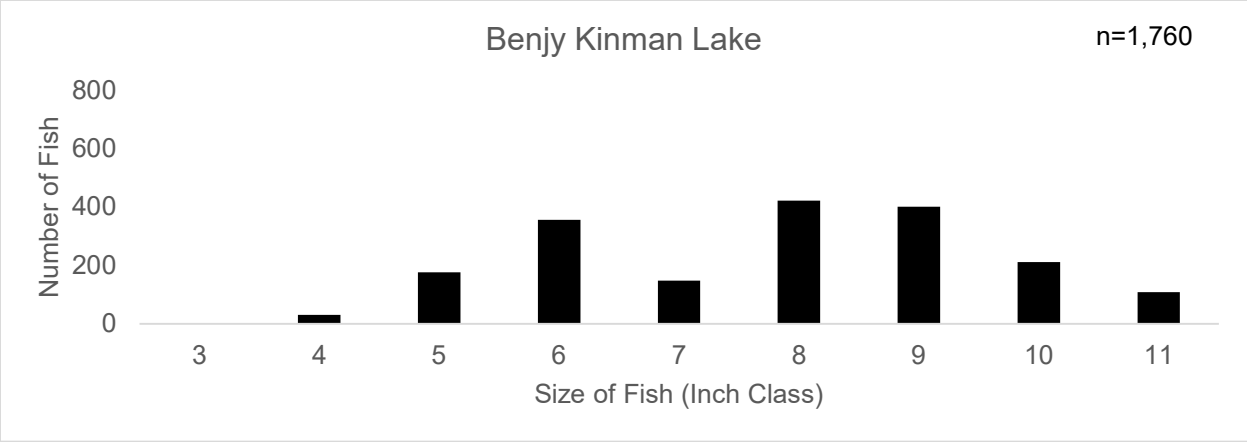

Figure 5. Number of Largemouth Bass removed with electrofishing gear by inch class from Benjy Kinman Lake in 2025.

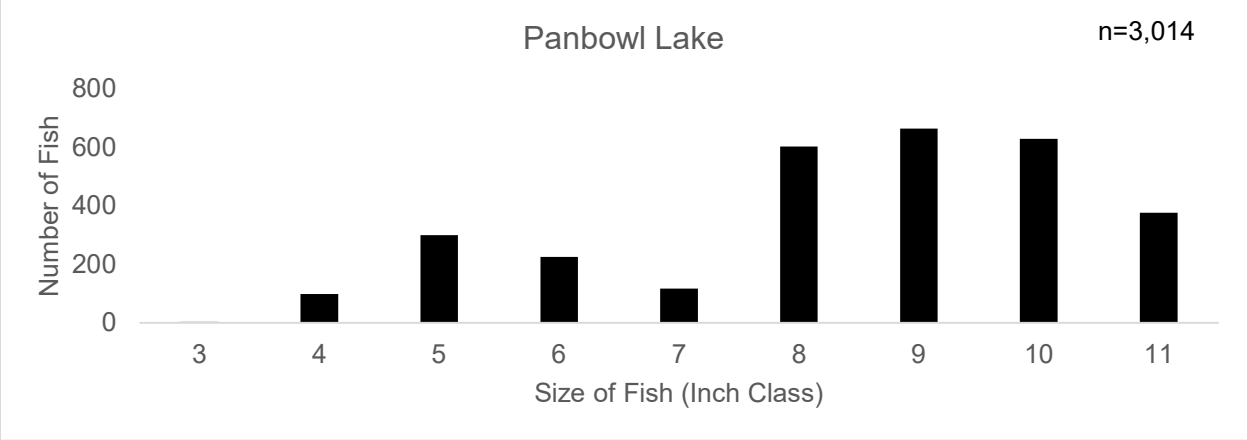

Figure 6. Number of Largemouth Bass removed with electrofishing gear by inch class from Panbowl Lake in 2025.

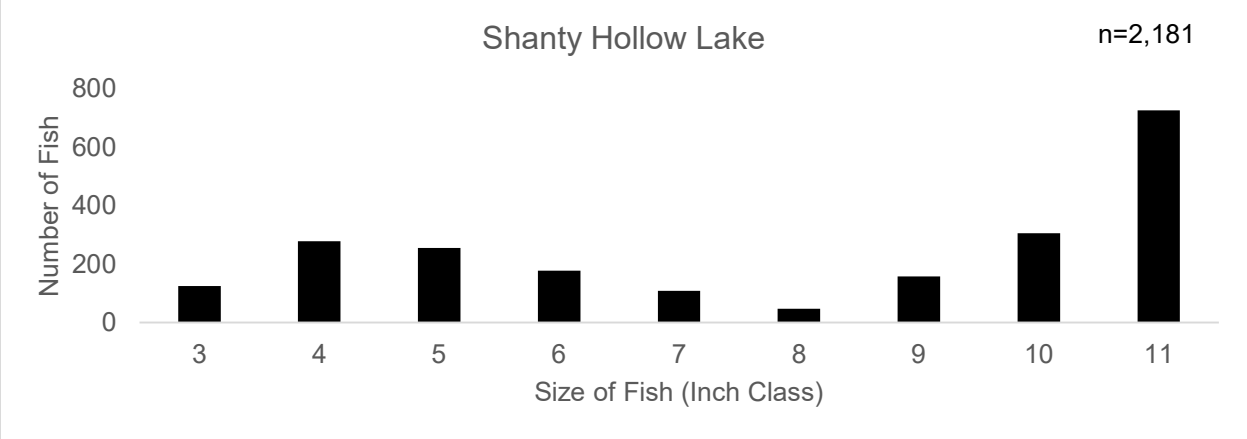

Figure 7. Number of Largemouth Bass removed with electrofishing gear by inch class from Shanty Hollow Lake in 2025.

Project VI: Evaluation of Stocking Largemouth Bass Removed from a Stunted Bass Population into New Waterbodies

FINDINGS

The objective of this study is to determine if Largemouth Bass catch rates can be significantly increased in three impoundments by stocking bass from crowded lakes at a rate of 5 fish/acre (Table 1).

In some impoundments, Largemouth Bass populations can become overcrowded, leading to stunted growth. When angler harvest is insufficient in keeping the fishery balanced and meeting management objectives, alternative methods may be needed. In recent years, several state agencies have removed bass with electrofishing gear in an attempt to restore balance to fisheries. While this method is typically labor intensive to remove enough bass to get the impoundment back to a balanced fishery, it may provide the added benefit of stocking recruitment-limited fisheries with larger bass than hatcheries can cost effectively produce. Stocking stunted bass into waterbodies that have lower than desired bass numbers can provide several benefits. Stunted Largemouth Bass are larger than most hatchery-raised fish with some larger fish likely sexually mature. Removed stunted bass also have minimal costs associated with them other than staff time to collect and relocate fish. The fact these are wild-raised fish could also increase initial survival after stocking as fish are accustomed to a natural environment (predators, natural food sources, etc.).

Possible negative implications of stocking bass from a stunted population include introducing non-native genetics and/or disease into a population. These implications need to be taken into consideration and carefully examined before relocating any fish. Additionally, anglers may also have a negative perception towards removing bass, even if the lake is bass crowded. Educational campaigns and clear messaging on the reasoning and science behind the removals are key to having angler buy-in. The Kentucky Department of Fish and Wildlife Resources (KDFWR) has conducted several bass relocation stockings over the years; however, an evaluation of those stocked fish has never been performed.

Doe Run Lake (49 acres; Kenton County), Guist Creek Lake (317 acres; Shelby County), and Jacobson Park Lake (46 acres; Fayette County) are all impoundments that face challenges with poor bass recruitment and have received multiple Largemouth Bass stockings over the years (Figure 1). These lakes were chosen to be stocked and evaluated for this study.

Spring electrofishing surveys on all study lakes >50 acres will follow the standardized sampling protocol of a minimum of 10 15-min runs or the entire shoreline. Guist Creek Lake has historically been sampled with 12 15-min runs which is above the minimum effort required and will continue to be sampled with this amount of effort. For lakes <50 acres, spring electrofishing sampling will follow the standardized sampling protocol of a minimum of 10 7.5-min runs or the entire shoreline.

A total of 12 15-min spring electrofishing runs were conducted at Guist Creek Lake in April 2025. This was prior to any bass being stocked as part of the research project. The overall catch rate of Largemouth Bass collected in 2025 was 170.3 fish/hr, with the highest proportion of bass in the ≥15.0 in length group (Table 2). The PSD for Largemouth Bass was 69 with a RSD_{15} of 52 (Table 3).

A total of nine 7.5-min electrofishing runs were conducted at Doe Run Lake in April 2025. The bass from Grayson Lake were not stocked prior to the spring electrofishing survey at Doe Run Lake. The overall catch rate of Largemouth Bass was 71.1 fish/hr, with bass in the ≥15.0 in length group making up the majority of the catch (Table 4). The PSD for Largemouth Bass was 87 with a RSD_{15} of 62 (Table 5).

A total of 10 7.5-min electrofishing runs were conducted at Jacobson Park Lake in April 2025. This was prior to any bass being stocked as part of the research project. The overall catch rate of Largemouth Bass collected in 2025 was 55.0 fish/hr, with the highest proportion of bass in the ≥15.0 in length group (Table 6). The PSD for Largemouth Bass was 97 with a RSD_{15} of 77 (Table 7).

All bass stocked in study lakes will be marked with a fin clip to monitor contribution rates. In 2025, 6.0-11.9 in Largemouth Bass were stocked in the study lakes at a rate of 5 fish/acre, with a right pectoral fin clip (Table 8). Both Guist Creek Lake (1,585 fish) and Jacobson Park Lake (230 fish) received the full stocking rate in Spring 2025. However, Doe Run Lake only received 207 of the 245 planned fish (4.2 fish/acre) due to mortality of bass held at the hatchery prior to stocking. Doe Run Lake and Jacobson Park Lake received fish from Grayson Lake, while Guist Creek Lake was stocked with fish from Benjy Kinman Lake in 2025. Following the three years of stocking (2025-27), there will be three years of monitoring the Largemouth Bass population in each study lake (2028-30).

The size of Largemouth Bass varied by lake within the 6.0-11.9 in size range stocked (Figure 2). The majority of bass stocked at Guist Creek Lake were in the 8-9 in classes (51% of stocked bass, Figure 3). Guist Creek Lake received Largemouth Bass from 10 different stocking events from 5 May 2025 – 4 June 2025 from fish removed from Benjy Kinman Lake (Table 8). The majority of bass stocked at Doe Run Lake were in the 10-11 in classes (66% of stocked bass, Figure 4). The length frequency histogram in Figure 4 indicates a total of 245 fish stocked, but 38 less fish of unknown lengths were stocked on 7 May 2025 from Grayson Lake due to mortality at the hatchery after lengths were recorded in the field. The highest proportion of Largemouth Bass stocked at Jacobson Park Lake were in the 6 in class (35% of stocked bass, Figure 5). Jacobson Park Lake received bass from Grayson Lake on 5 June 2025.

Guist Creek Lake had been stocked with Largemouth Bass of varying sizes and stocking rates from nearby lakes for several years prior to this research project (2019-2024). All those stocked bass were unmarked except for 2,031 Largemouth Bass 4.0-11.9 in stocked in Fall 2024 from Benjy Kinman Lake that were marked with a left pectoral clip (Figure 6).

A.J. Jolly Lake was originally intended to be a study lake and was stocked with 875 Largemouth Bass from Grayson Lake in Spring 2025. However, lake levels were lowered for dam repairs, and the lake was closed in 2026 where the lake could not be stocked or sampled. The lake was removed from this study.

Doe Run Lake and Jacobson Park Lake appear to be excellent candidates for Largemouth Bass stockings as both lakes had overall catch rates <75 fish/hr for Largemouth Bass in Spring 2025 prior to stocking. Study lakes indicated unbalanced fisheries based on PSD values (balanced is considered 40-70). While Guist Creek Lake had a PSD value of 69, it is on the very upper end of the balanced spectrum. Previous stockings of Largemouth Bass decreased the PSD value as the majority of marked bass from the 2024 stocking were observed at stock size and very few fish were quality or larger in Spring 2025.

A limited amount of fish mortality was noted during several stocking events, but exact counts of fish and lengths were not taken. In 2026, mortality counts that occur during transport and/or holding will be taken prior to stocking. Largemouth Bass stocked in Doe Run Lake in 2025 were held for 24 hours at Minor Clark Fish Hatchery where 24 bass died at the hatchery and another seven bass died in transport to Doe Run Lake. Future stockings will include a small buffer to offset transportation mortality (10-15 extra fish).

While not part of this research study, routine electrofishing sampling by Central Fisheries District in Fall 2025 at Guist Creek Lake yielded marked bass stocked in 2024 and 2025. The CPUE of right pectoral marked bass that were stocked in Spring 2025 was 7.6 fish/hr at Guist Creek Lake in Fall 2025. These bass ranged in size from 7.8-12.8 in in length with an average length of 10.4 in. In Fall 2025, the relative weight was 88(1) for the 8.0-11.9 in length group and 90(2) for the 12.0-14.9 in length group of marked bass stocked in 2024 and 2025, compared to 92(1) and 101(1) for the 8.0-11.9 and 12.0-14.9 in length groups respectively, of unmarked fish at Guist Creek Lake. While the relative weights of stocked bass were lower than natural fish in Guist Creek Lake, stocked bass had higher relative weights compared to bass in the same length groups from Benjy Kinman Lake, the source of the fish, displaying that once forage was available, condition of stunted bass improved.

Table 1. Management goals for each year of monitoring at Guist Creek Lake, Doe Run Lake and Jacobson Park Lake.

Year	Goals
2026	Contribution of stocked bass is ≥5% of spring electrofishing CPUE of 8.0-11.9 in length group, with a total CPUE of ≥5 fish/hr of stocked bass.
2027	Contribution of stocked bass is ≥5% of spring electrofishing CPUE of 8.0-11.9 and 12.0-14.9 in length groups, with a total CPUE of ≥7.5 fish/hr of stocked bass.
2028	Contribution of stocked bass is ≥5% of spring electrofishing CPUE of 8.0-11.9, 12.0-14.9, and ≥15.0 in length groups, with a total CPUE of ≥10 fish/hr of stocked bass.
2029	Contribution of stocked bass is ≥5% of spring electrofishing CPUE of 12.0-14.9 and ≥15.0 length groups, with a total CPUE of ≥7.5 fish/hr of stocked bass.
2030	Contribution of stocked bass is ≥5% of spring electrofishing CPUE of ≥15.0 in length group, with a total CPUE of ≥5 fish/hr of stocked bass.

Table 2. Spring electrofishing catch rate (fish/hr) by length group for Largemouth Bass in 12 15-min electrofishing runs at Guist Creek Lake in April 2025. Standard errors in parentheses.

	Length group (in)				
Year	<8.0	8.0-11.9	12.0-14.9	≥15.0	Total
2025	37.0 (4.5)	42.0 (3.5)	22.7 (3.7)	68.7 (6.9)	170.3 (11.0)

Table 3. PSD and RSD_{15} values calculated for Largemouth Bass collected in spring electrofishing samples at Guist Creek Lake in 2025; 95% confidence intervals are in parentheses.

Year	≥ Stock size	PSD	RSD_{15}
2025	400	69 (±5)	52 (±5)

Table 4. Spring electrofishing catch rate (fish/hr) by length group for Largemouth Bass in nine 7.5-min electrofishing runs at Doe Run Lake in April 2025. Standard errors in parentheses.

	Length group (in)				
Year	<8.0	8.0-11.9	12.0-14.9	≥15.0	Total
2025	1.8 (1.2)	8.9 (2.5)	17.8 (4.4)	42.7 (15.1)	71.1 (17.0)

Table 5. PSD and RSD_{15} values calculated for Largemouth Bass collected in spring electrofishing samples at Doe Run Lake in 2025; 95% confidence intervals are in parentheses.

Year	≥ Stock size	PSD	RSD_{15}
2025	78	87 (±7)	62 (±11)

Table 6. Spring electrofishing catch rate (fish/hr) by length group for Largemouth Bass in 10 7.5-min electrofishing runs at Jacobson Park Lake in April 2025. Standard errors in parentheses.

	Length group (in)				
Year	<8.0	8.0-11.9	12.0-14.9	≥15.0	Total
2025	20.0 (5.0)	1.0 (1.0)	7.0 (2.4)	27.0 (5.4)	55.0 (11.3)

Table 7. PSD and RSD_{15} values calculated for Largemouth Bass collected in spring electrofishing samples at Jacobson Park Lake in 2025; 95% confidence intervals are in parentheses.

Year	≥ Stock size	PSD	RSD_{15}
2025	35	97 (±5)	77 (±14)

Table 8. Number of Largemouth Bass stocked in study lakes in 2025.

Lake	Number of Fish Stocked	Stocking Rate (Fish/Acre)	Fin Clip	Year	Source Waterbody
Guist Creek Lake	1,585	5.0	Right pectoral	2025	Benjy Kinman Lake
Doe Run Lake	207	4.2	Right pectoral	2025	Grayson Lake
Jacobson Park Lake	230	5.0	Right pectoral	2025	Grayson Lake

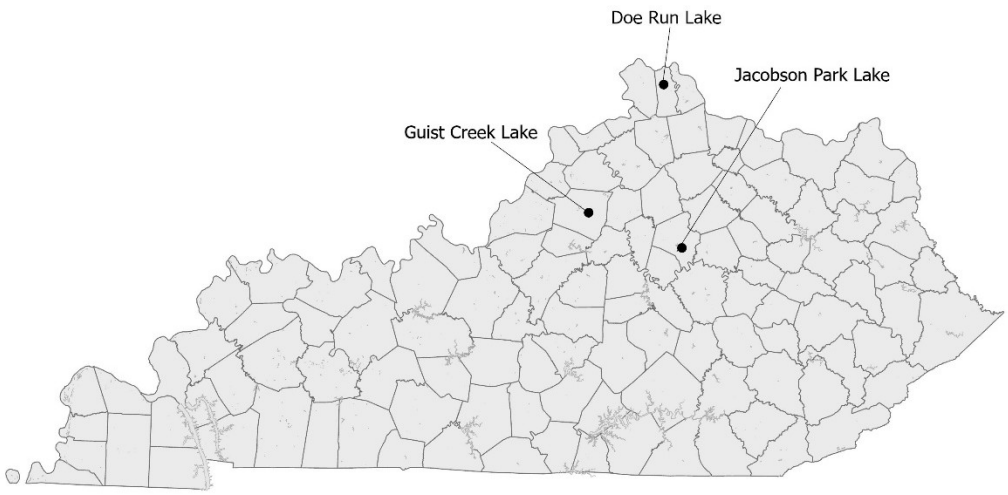

Figure 1. Map of study lakes in Kentucky

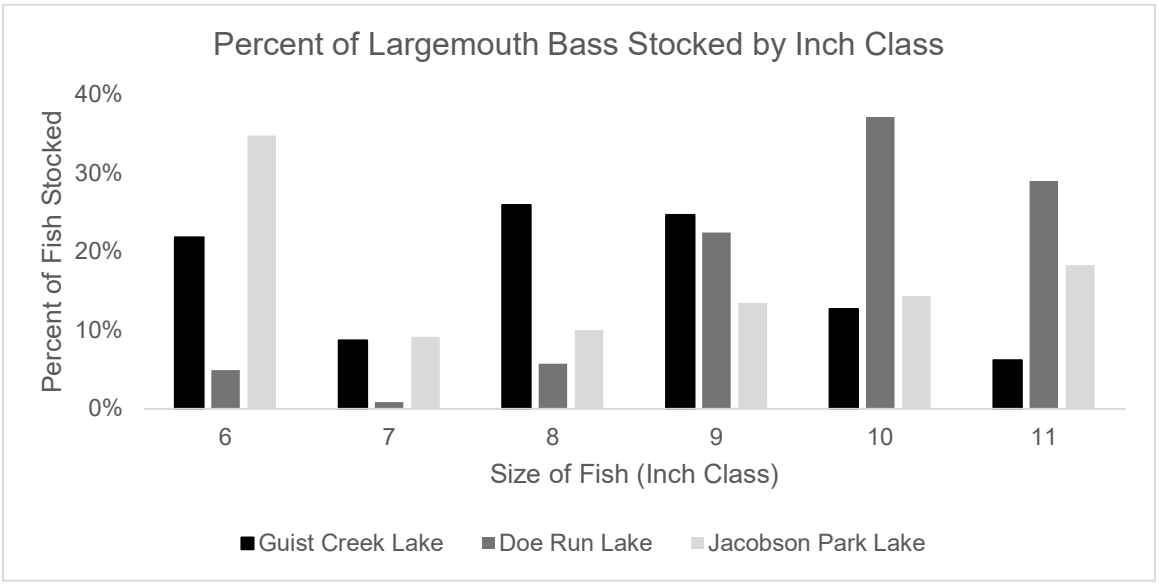

Figure 2. The percentage of Largemouth Bass stocked by inch class in Guist Creek Lake, Doe Run Lake and Jacobson Park Lake in 2025.

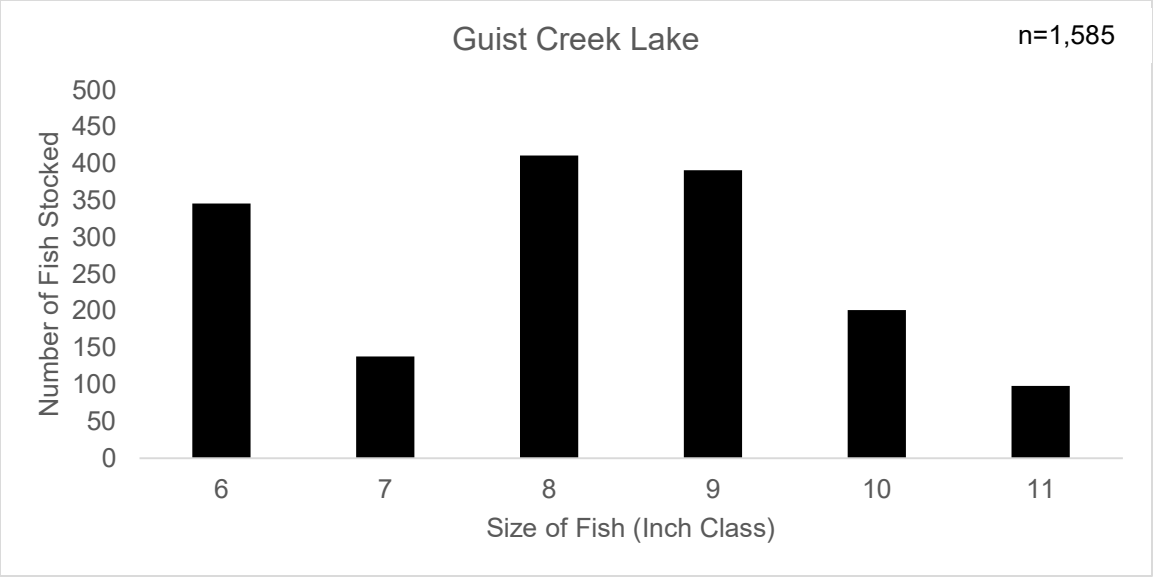

Figure 3. Number of Largemouth Bass stocked by inch class in Guist Creek Lake in 2025.

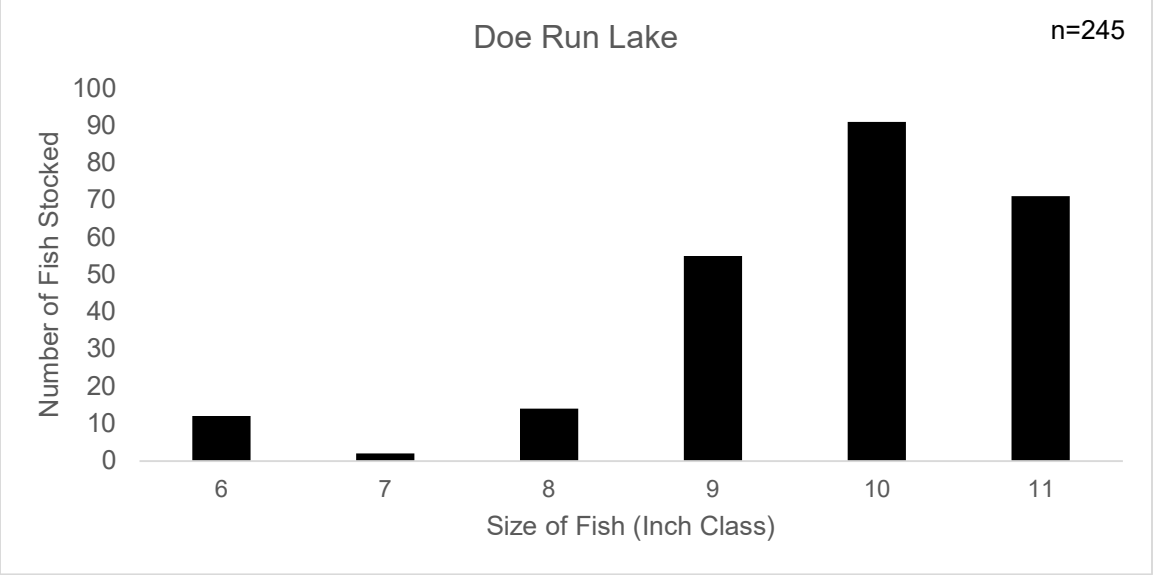

Figure 4. Number of Largemouth Bass stocked by inch class in Doe Run Lake in 2025.

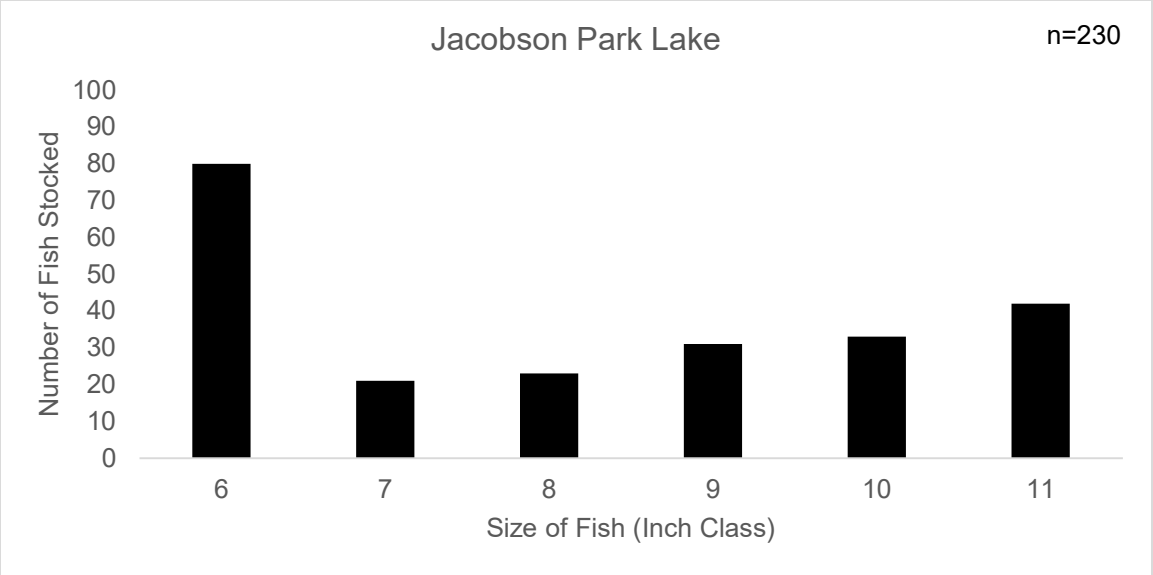

Figure 5. Number of Largemouth Bass stocked by inch class in Jacobson Park Lake in 2025.

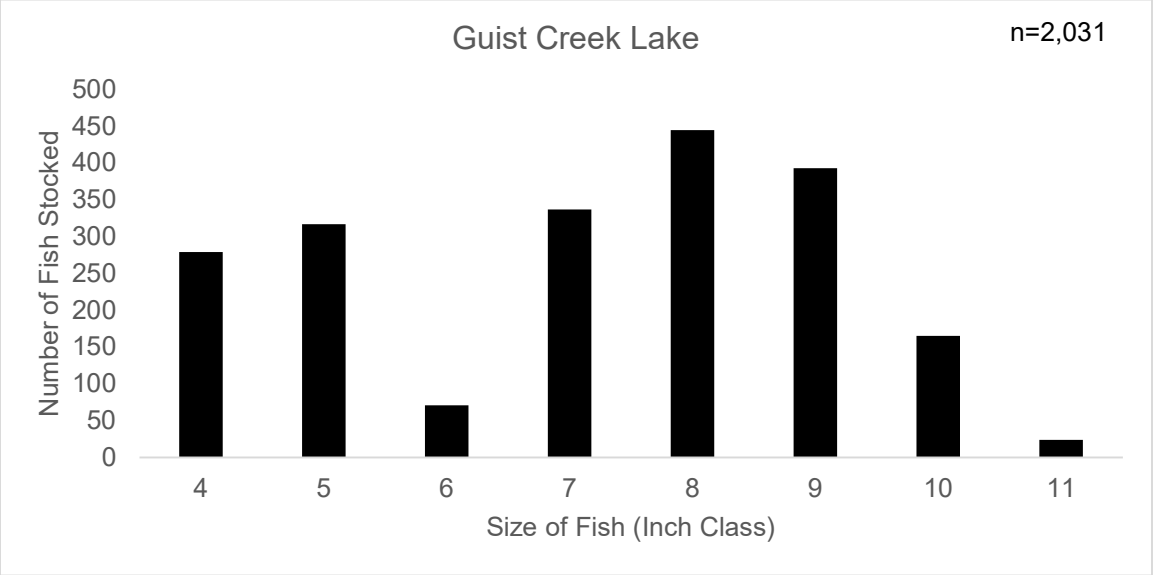

Figure 6. Number of Largemouth Bass stocked by inch class in Guist Creek Lake in Fall 2024.